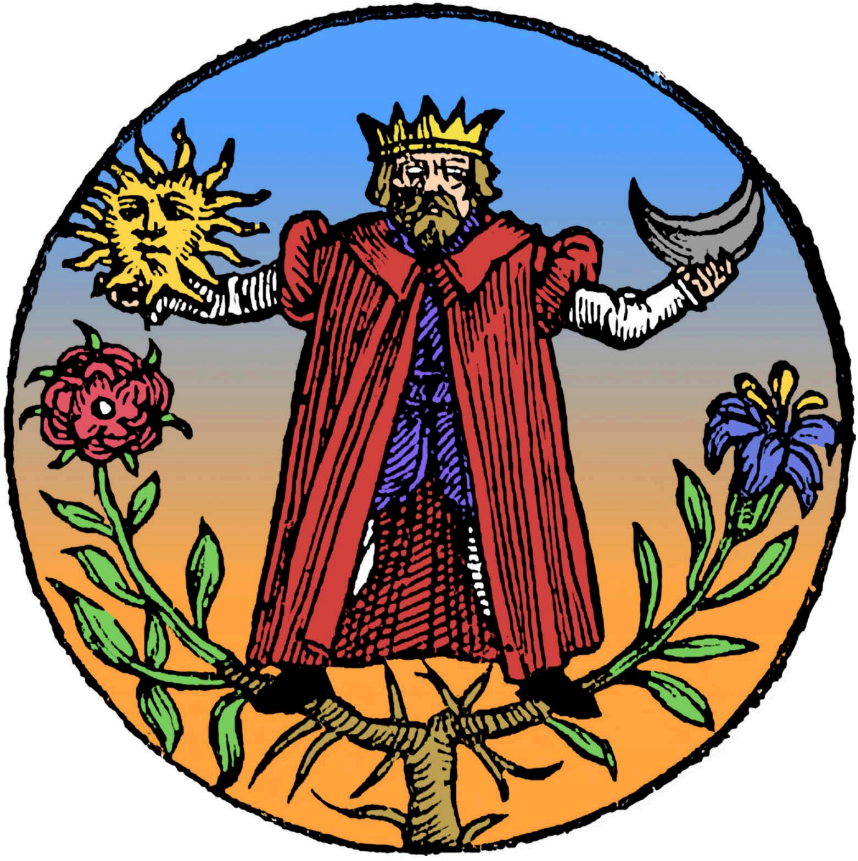
The Hermetic and Alchemical Writings of Paracelsus



Volume I

The Hermetic and Alchemical Writings of Paracelsus

Edited by A. E. Waite



TRADITION

THE HERMETIC AND ALCHEMICAL WRITINGS OF PARACELSUS.

THE

HERMETIC AND ALCHEMICAL WRITINGS

OF

AUREOLUS PHILIPPUS THEOPHRASTUS BOMBAST,

OF HOHENHEIM, CALLED

PARACELSUS THE GREAT.

NOW FOR THE FIRST TIME FAITHFULLY TRANSLATED INTO ENGLISH.

EDITED WITH A BIOGRAPHICAL PREFACE, ELUCIDATORY NOTES, A COPIOUS HERMETIC VOCABULARY, AND INDEX,

By ARTHUR EDWARD WAITE.

IN TWO VOLUMES.

VOL. I.

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PREFACE TO THE ENGLISH TRANSLATION.

THERE are many respects in which Paracelsus at the present day seems to be little more than a name. Even among professed mystics the knowledge concerning him, very meagre and very indefinite, is knowledge that has been obtained at second hand, in most cases from Eliphas Levi, who in his *Dogme et Rituel de la Haute Magie*, and again in his *Histoire de la Magie*, has delivered an intuitive judgment upon the German "Monarch of Arcana," expressed epigramatically, after the best manner of a Frenchman.* But, whencesoever derived, the knowledge is thin and phantasmal. Paracelsus is indeed cited as an authority in occult science, as a great alchemist, a great magician, a great doctor; he is somehow supposed to be standing evidence of the "wisdom of a spoliated past," and to offer a peculiar instance of malignity on the part of the enemies of Hermetic philosophy, because such persons have presumed to pronounce him an impostor. Thus there is a very strong opinion concerning him, which occultists and mystics of all schools have derived from a species of mystical tradition, and this represents one side of modern thought concerning him. It is not altogether a satisfactory side, because it is not obtained at first hand. In this respect, however, it may compare, without suffering by comparison, with the alternative opinion which

* The cure of Paracelsus were miraculous, and he deserved that there should be added to his name of Philippus Theophrastus Bombast that of Aureolus Paracelsus, with the addition of the epithet of divine.—*Dogme de la Haute Magie*, c. 1. Paracelsus, that reformer in magic, who has surpassed all other initiates by his unassisted practical success.—*Ibid.*, c. 5. Paracelsus, the most sublime of the Christian magi.—*Ibid.*, c. 16. Paracelsus was a man of inspiration and of miracles, but he exhausted his life with his devouring activity, or, rather, he rapidly outwore and destroyed its vestment: for men like Paracelsus can both use and abuse fearlessly; they well know that they can no more die than grow old here below.—*Rituel de la Haute Magie*, c. 2. Paracelsus was naturally aggressive and combative; his familiar, he said, was concealed in the pommel of his great sword, which he never put aside. His life was incessant warfare; he travelled, he disputed, he wrote, he taught. He was more attentive to physical results than to moral conquests; so he was the first of practical magicians and the last of wise adepts. His philosophy was wholly sagacity, and he himself called it *Philosophia Sagax*. He has divined more than anyone without ever completely understanding anything. There is nothing to equal his intuitions unless it be the temerity of his commentaries. He was a man of bold experiences; he was drunk of his opinions and his talk; he even got drunk otherwise, if we are to believe his biographers. The writings which he has left behind him are precious for science, but they must be read with caution; he may be called the divine Paracelsus, if the term be understood in the sense of a diviner; he is an oracle, but not invariably a true master. He is great as a physician above all, for he had discovered the Universal Medicine; yet he could not preserve his own life, and he died while still young, worn out by his toil and excesses, leaving a name of fantastic and doubtful glory, based on discoveries by which his contemporaries did not profit. He died without having uttered his last message, and he is one of those mysterious personages of whom one may affirm, as of Enoch and S. John: he is not dead, and he will revisit the earth before the last day.—*Histoire de la Magie*, Liv. V., c. 5. His success was prodigious, and never has any physician approached Paracelsus in the multitude of his marvellous cures.—*Dogme de la Haute Magie*, c. 16.

obtains among non-mystics, namely, that Paracelsus was a great charlatan, though at the same time it is true that he was a great physician, at least for the period in which he lived. This judgment as little, perhaps less than the other, is derived from any solid knowledge concerning the man or his writings.* At the same time it is noticeable that even hearsay condemnations admit that Paracelsus performed notable cures. How it comes about that the application of what would be termed a distracted theory both in medicine and physics enabled its inventor to astound his age by what seemed miracles of the healing art would be a crux for such criticism if the criticism knew anything about it. It is not a crux for the mystics, because by these it would be replied that Paracelsus was a veritable adept, that his Hermetic teachings require to be interpreted, and that the key to their meaning would lay open for those who possess it an abundant treasure of sapience to which the literal significance is only a *bizarre* veil. Between these views it is unnecessary to make choice here. It is proposed to enable those who are interested in either to judge this matter for themselves by placing completely before them, for the first time, and in an English dress, the Hermetic writings of Paracelsus. It is proposed, also, by way of a brief introduction, to notify a few facts in connection with the life of the author, which may be useful at the beginning of an inquiry.

There are, however, many debateable points in connection with the life of Paracelsus to which a reference in this place scarcely requires to be made. What proportion of his long designation belonged to him by birth or baptism, to what countries he actually extended his travels during incessant wanderings which terminated only with his life, under what circumstances he died and what was the precise manner of his death, all these are points about which there is considerable uncertainty, and they are at this day not likely to be settled. Theophrastus and Bombast seem to have been assumed names, to one of which an unfortunate, and in some respects an undeserved, significance has been since attracted. The surname of Paracelsus was conferred by his father in alchemy, and it signified that he was greater than Celsus, the physician of ancient fame. To the style of Hohenheim it is believed that he had only a doubtful right. His alternative designation of Eremite suggests the monastic state, but the reference is simply to his birthplace, Maria Einsiedeln, or Notre Dame des Eremites, a short distance from Zurich. He appears to have been christened Philippus Aureolus, and in his writings he indifferently

* M. Louis Figuier, the French scientist, who otherwise might perhaps be regarded as exhibiting more than Gallic accuracy, may be cited in this connection. Referring to the fact that Paracelsus has laid some stress upon an opinion not uncommon among alchemists, namely, that astrology and magic are collaterally a help to the seeker after the Great Work, he goes on to affirm that the writings of Paracelsus are filled with foolish invocations to the invisible world, while, as a fact, there is not a single treatise comprised in the great Geneva folio, nor is there any other extant work attributed to Paracelsus, and known to the present editor, which contains any invocations at all. M. Louis Figuier subsequently states, apparently on the sole authority of his intuition as a Frenchman and a man of parts, that the fuliginous Swiss physician enjoys only a contested authority among alchemists, which is only partially true; and adds that he was a theoretical writer who did not apply himself manually to the accomplishment of the *Magnum Opus*, which, so far as it is possible to judge, is not true at all.

describes himself as a Helvetian and a German. He was born in the year 1493, following the tradition which is most generally accepted, but other dates have been indicated, the earliest being 1490. According to one account he was descended from the ancient and honourable family of Bombast, which had abode during many generations at the castle of Hohenheim, near Stuttgart, Würtemberg, but this is most probably romancing. His father was a physician of repute, who is said to have been in possession of a large collection of curious books, and has also been described as a grand master of the Teutonic order, but the precise meaning attaching to this high-sounding dignity is uncertain and the authority is suspicious. His mother is variously identified as the matron of a hospital and "superintendent of the university of Einsiedeln." Paracelsus is reputed to have been their only child, born one year after marriage, but it has also been hinted that his parents were not married, and that the great master of Hermetic medicine was a natural son. He is said also to have been emasculated in his childhood, but there is reason to suppose that this was merely a hypothetical explanation to account for his beardless and somewhat feminine appearance, and for that hatred of women which seems to have been one of his social characteristics, and can be traced indirectly, but with sufficient distinctness, in his writings.* About 1502 the family removed to Carinthia, and there the father continued to practise medicine till his death in 1534. From him Paracelsus is supposed to have received the first rudiments of education, and he entered the university of Basle at the age of sixteen, when he betook himself to the study of alchemy, surgery, and medicine. To the first of these sciences he had previously had some introduction through the works of Isaac the Hollander, which are said to have inflamed him with the ambition of curing diseases by medicine superior to the *materia* at that time in use. It was from the same source that he derived the cardinal principle which is enunciated everywhere in his writings, namely, that salt, sulphur, and mercury are the three elementary constituents of all substances. This doctrine, however, by no means originated with the first alchemist of Holland, and Isaac himself was a follower of Geber, Morien, and Arnold.† The actual initiation of Paracelsus into the mysteries of alchemy is, however, supposed to have been attained under the

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* So free was Paracelsus of all amourous weaknesses, that he made even his sex seem doubtful.—*Dogme de la Haute Magie*, c. 11.

† Contemporary with Basilius Valentinus were Isaac the Hollander and his son, who are supposed to have worked with success. They were the first alchemists of Holland, and their operations were highly esteemed by Paracelsus, Boyle, and Kunckel. In practical chemistry they followed the traditions of Geber, and their alchemical experiments are the most plain and explicit in the whole range of Hermetic literature. They worked principally in metals, describing minutely the particulars of every process. Their lives are almost unknown. . . . They are placed in the fifteenth century by conjecture, from the fact that they do not cite any philosophers subsequent to that period. They speak of Geber, Dastin, Morien, and Arnold, but not of more modern authorities, while, on the other hand, their references to aquafortis and aqua regia, which were discovered in the fourteenth century, prevent us from assigning their labours to an anterior epoch. The two Isaacs were particularly skilful in the manufacture of enamels and artificial gem-stones. They taught that the Grand Magisterium could convert a million times its own weight into gold, and declared that any person taking weekly a small portion of the philosophical stone will be ever preserved in perfect health, and his life will be prolonged to the very last hour which God has assigned to him.—*Lives of Alchemystical Philosophers.*

tuition of the Abbot Trithemius,* who is regarded as an adept of a high order, and had been previously the instructor of the more celebrated, though less illustrious, Henry Cornelius Agrippa.† From this mysterious ecclesiastic, who at the present day, in so far as he is remembered at all, is best known by his treatises on cryptic writing, he is supposed to have acquired "the Kabbalah of the spiritual, astral, and material worlds." About 1516 he is still found at Basle pursuing his researches in mineralogy, medicine, surgery, and chemistry, under the guidance of Sigismund Fugger, a wealthy physician of that city. Subsequently, having got into some trouble with the authorities, he fled, and commenced his nomadic life, which an apparently inaccurate tradition represents to have begun at the age of twenty years. Though his father was still alive he appears to have been without any means of subsistence, and supported himself, like many distressed students of that period, by psalm-singing, astrological predictions, chiromantic soothsaying, and, it is even said, by necromantic practices. He wandered through Germany, Hungary, Italy, France, the Netherlands, Denmark, Sweden, and Russia. In the last mentioned country, if it be true that he ever reached it, he is reported to have been made prisoner by the Tartars, to have been brought before "the Great Cham," to have become a favourite at the court of that potentate, and to have accompanied his son on an embassy from China to Constantinople. In spite of the tuition of Trithemius, he had apparently something to learn, and that was nothing less than "the supreme secret of alchemistry," the "universal dissolvent," the Azoth, alcahest, or sophic fire. This was imparted to him by a generous Arabian, about whom no other particulars are forthcoming. It is easy to see that the greater part of this nomadic legend is purely fabulous, and so also, in all probability, is his subsequent journey to India and Egypt. It is not an unusual device to account for obscure periods in the lives of Hermetic philosophers by extensive eastern travellings. However this may be, Paracelsus ultimately returned to Europe, and passed along the Danube into Italy, where he appears as an army surgeon, and where also his wonderful cures began. He is said to have re-entered Germany in 1526, at the age of thirty-two, and if this be accepted the date 1516, when he is supposed to have been at work with Sigismund Fugger, will be found approximately correct. It is to the period immediately succeeding his return that most of his biographers assign his induction into a professorship of physics, medicine, and surgery, at the university he entered

* Trithemius was a monk of the Benedictine order, who began life as a mendicant child setting forth in search of knowledge. He was received into a convent at Trèves, where he made astounding progress in his studies. Having exhausted the possibilities of his teachers, he betook himself to Louvain, thence to Heidelberg, and subsequently to Mayence. He became familiar with oriental languages, pagan and Christian philosophy, astronomy, and alchemy. He was a theologian, a poet, an astronomer, and a necromancer. He took monastic vows in 1482, and in the year following he became the abbot of a convent at Spanheim, which he transformed speedily into a sanctuary of art and the sciences. He subsequently was made superior of an abbey at Wurzbourg, and there it would appear he remained till his death in the year 1516. His works are chiefly historical, but, as above indicated, there are some upon secret writing which are exceedingly curious, and one, *Chronologia Mystica*, is of a magical character.

† Agrippa, who seems to have divided with Paracelsus the reputation of the Trismegistus of his time, was born in 1486 and died in 1535.

as a youth. This was a position of some importance, and it was offered him at the instance of Erasmus and Ecolampidus. "There, in his lectures, he professed internal medicine, denounced the antiquated systems of Galen and other authorities, and began his instruction by burning the works of these masters in a brass pan with sulphur and nitre. He created innumerable enemies by his arrogance and his innovations, but the value of his mineral medicines was proved by the cures which he performed.* These cures only increased the hatred of his persecutors, and Paracelsus, with characteristic defiance, invited the faculty to a lecture, in which he promised to teach the greatest secret of medicine. He began by uncovering a dish which contained excrement. The doctors, indignant at the insult, departed precipitately, Paracelsus shouting after them: 'If you will not hear the mysteries of putrefactive fermentation, you are unworthy of the name of physicians.'" It will be easily understood that the Hermetic doctor did not long retain his professorship at Basle. He came into conflict with the municipal authorities, and a second time he was forced to flee the place. He betook himself once more to a wandering mode of life. In 1528 he proceeded to Colmar; in 1530 he is found at Nuremburg, in embroilment, as usual, with the medical faculty, by whom he was denounced as an impostor, but the tables were turned on his opponents after his successful treatment of several aggravated cases of elephantiasis. For the ten years succeeding this date there are no certain records of his movements; he commonly lodged at inns and other public places, still performing cures which were astonishing for the period, and, according to the accusations of his enemies, also drinking to excess.† The testimony of Oporinus on this point is very clear, though it has been indignantly repudiated by some of his later defenders. In 1541 Paracelsus was invited by Archbishop Ernst to settle at Salzburg, and there, according to one account, he died on September 24 of the same year, but the manner of his death, like that of his birth, has been the subject of contradictory recitals.‡ By an alternative statement it occurred on a bench at the kitchen fire in a Strasburg hostelry. One writer supposes the event to have been accelerated by a scuffle with assassins in the pay of the orthodox medical faculty.

There can be no doubt that Paracelsus obtained a wide, though not altogether a happy, reputation during the brief period of his turbulent life, and there is also no doubt that this was immeasurably increased after death.

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* Paracelsus, who was the first who made known zinc, has obtained an immense and deserved reputation by introducing into medicine the use of chemical compounds furnished by metals. To the old therapeutics of the Galenists, abounding in complicated and often inoperative preparations, he substituted the simple medicaments furnished by chemistry, and was the first to open the audacious path to the application of this science to human physiology and pathology.—Louis Figuier, *L'Alchimie et les Alchimistes, troisième édition*, pp. 99, 100.

† Marvellous Paracelsus, always drunk and always lucid, like the heroes of Rabelais.—*Dogme de la Haute Magie*, Introduction.

‡ He proceeded to Maehren, Kaernthen, Krain, and Hungary, and finally landed in Salzburg, to which place he was invited by the Prince Palatine, Duke Ernst of Bavaria, who was a great lover of the secret arts. In that place Paracelsus obtained at last the fruits of his long labours and of a widespread fame. But he was not destined to enjoy a long time the rest he so richly deserved. . . . He died, after a short sickness (at the age of forty-eight years), in a small room of the White Horse Inn, near the quay, and his body was buried in the graveyard of St. Sebastian.—Hartmann's *Paracelsus*.

It is in no sense inexact to affirm that he founded a new school both in medicine and in alchemy. The commentaries on his medical system became a literature which, in extent, at least, is formidable; out of the mystic physics of his alchemical teachings the Rosicrucian doctrines developed in the first part of the following century. The works of Benedictus Figulus are evidence that he was idolized by his disciples. He was termed the noble and beloved monarch, the German Hermes, the Philosopher Trismegistus, our dear preceptor and King of Arts, Theophrastus of blessed memory and immortal fame. The collection of his genuine writings was made with devout care, and as a consequence of his celebrity many fictitious treatises were in due course ascribed to him.* Students attracted by his doctrines travelled far in search of like-minded persons to compare observations thereon, and to sift the mystery of his instruction. In the course of these inquiries it seems to have become evident, from the experience of his followers, that his prescriptions in many cases were not to be literally understood, even when they were apparently the ordinary formulæ and concerned with the known *materia* of medicine. It will scarcely be necessary to add that in things alchemical the letter of his teachings was found still more in need of interpretation. The very curious influence exercised by Paracelsus for something like two hundred years over certain sections of restless experiment and speculation is still unwritten, and it would be interesting to trace here, were it possible within the limits of a preface. A task so ambitious is, however, outside those limits, and will perhaps be more wisely surrendered to other hands, for it is, in the main, part of the history of medicine, and demands an expert in the medical literature and medical knowledge of the past. The translations which follow are concerned only with the Hermetic writings of Paracelsus, to the exclusion of many formidable treatises on surgical science, and on the causes and cure of disease. They comprise what Paracelsus would himself have comprised in a collection of his alchemical writings, and this in itself is much more than is ordinarily understood to be within the significance of the term. With Paracelsus the province of alchemy was not limited to the transmutation of metals. It was, broadly speaking, the development of hidden possibilities or virtues in any substance, whether by God, or man, or

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* More especially, dear friends, have we to complain of the devilish cunning way in which the works of Theophrastus have hitherto been suppressed, only a few of which (and those to be reckoned the very worst) having appeared in print. For although they have been collected together from all countries in which Theophrastus has lived and travelled—the books he has written in Astronomy, Philosophy, Chemistry, Cabala, and Theology, numbering some thousand volumes—yet the same has only been done from avarice to get riches. For, having been trafficked in and sold for great sums, they have become scattered among the courts of princes and nobles, while Christendom at large, for whose use and benefit Theophrastus wrote, has no part in them. Particularly his theological works (because they annihilate the godless, and do not suit children of this world—belly-servers, deceived by the devil) have hitherto been totally suppressed. . . . But, at the Last Day, I, together with all true Sons of the Doctrine, shall demand an account of them for having . . . shut Truth away in boxes, walls, and vaults, and behind locks and bolts. Now, these precious and revered writings were ordered by God in our latter times, through Theophrastus, for the use and weal of the whole of Christendom. As regards our dear, highly favoured Monarch and Preceptor, . . . we, for our part, will not suppress his Life, his well-merited praise, . . . given him by God, the Angels, and the whole Firmament, but will heartily defend his honour and teaching to the very end of our life.—Benedictus Figulus, *A Golden and Blessed Casket of Nature's Marvels.*

Nature. Thus it included the philosophy of creation, and dealt with the first matter as developed into the universe by Divine Power. It included also the natural evolution which takes place round us, whether in the formation of metals within the earth, or the formation of animals in the matrix. Finally, it included the development by man's skill and art of whatsoever was capable of improvement in the products of Nature. Thus the Hermetic and Alchemical writings of Paracelsus have a wider scope than might at first be inferred from the title. The purpose of this translation is altogether of an unpretentious kind. It aims at providing, and that for the first time, a complete and faithful text of all that Paracelsus is known or supposed to have written on the subject of alchemy and Hermetic medicine. It does not attempt to distinguish between the works which have been falsely attributed to him ; concerning this question there are no satisfactory canons of criticism, for those which have been indicated by the old author of the *Onomastikon* are of an arbitrary and unpractical kind. A careful reader will probably regard with suspicion the "Aurora of the Philosophers," at least in its present state, and he will possibly reject altogether the treatise "Concerning the Spirits of the Planets." There is nothing else in these volumes, except the uncertain "Manual," which from internal evidence is unlikely to have been the work of Paracelsus, and it is unnecessary to enter into the question which has been raised by some of his biographers as to his employment of scribes under him, who reduced his dictations to writing and have possibly maltreated their master. The text which has been adopted for translation is the Geneva folio, in four volumes, 1658, in Latin. The *bizarre* mixture of Latin and old German in which Paracelsus originally wrote presents many difficulties with which it is unnecessary to grapple, as the Latin collected edition appears to represent in a very satisfactory manner both the letter and the spirit of the originals.

It seems also desirable to state that a comparison of the medical and chemical knowledge possessed by Paracelsus with the chemistry and medicine of to-day is outside the purpose of this edition, because it is outside possibility within the limits of two volumes. There is no doubt that it would be an interesting as well as an important task to establish the exact position of Paracelsus, not only as regards modern knowledge, but as regards the science which preceded him, and it is hoped that such a work will be ultimately performed. Should this translation be regarded as final by students, or at least as a satisfactory foundation for a full and complete comprehension of the sage of Hohenheim, and should the encouragement which is indispensable to an undertaking so long and costly be adequately given, it is proposed, after a reasonable interval, that these two volumes of uncriticised text should be followed by one other which will contain all the materials requisite for understanding Paracelsus, and will further trace, methodically and historically, the development of alchemical symbolism, with the growth of chemical knowledge from the Byzantine period to the dawn of the Reformation. It is

anticipated that this inquiry will fix for the first time the true objects of Hermetic physics, and the place which must be assigned to Paracelsus in connection therewith. The less ambitious but indispensable preliminary of this inquiry has been alone attempted here, and the simple provision of a text, as intelligible as the circumstances will allow, has been truly no light undertaking, nor should it be regarded as the exclusive work of one hand. The editor has accomplished his task with the collaboration of other specialists, and is responsible only for certain portions of the actual translation, and for its general revision and collation. The work, as it stands, consists of (*a*) the large body of literature, entire and unabridged, attributed to Paracelsus, and treating directly of alchemy, and the transcendental doctrines and physics of the *Magnum Opus*; (*b*) The whole Paracelsian literature of the Great Elixir and the Universal Medicine; (*c*) So much of the Hermetic philosophy and cosmogony of Paracelsus as has been judged necessary to illustrate his alchemical teachings; (*d*) One important treatise illustrating the application by Paracelsus of metallic and mineral substances to the treatment of diseases; (*e*) An exhaustive collection of alchemical references scattered through the chirurgical works of Paracelsus. Thus, the present edition is practically inclusive of everything except the exoteric medicine of Paracelsus, which, it is thought, is of inferior importance to the modern student.

PART I.

HERMETIC CHEMISTRY.

THE CŒLUM PHILOSOPHORUM,

OR BOOK OF VEXATIONS;

BY PHILIPPUS THEOPHRASTUS PARACELSUS.

THE SCIENCE AND NATURE OF ALCHEMY, AND WHAT OPINION SHOULD BE FORMED THEREOF.

Regulated by the Seven Rules or Fundamental Canons according to the seven commonly known Metals; and containing a Preface with certain Treatises and Appendices.

THE PREFACE

OF THEOPHRASTUS PARACELSUS TO ALL ALCHEMISTS AND READERS OF THIS BOOK.

YOU who are skilled in Alchemy, and as many others as promise yourselves great riches or chiefly desire to make gold and silver, which Alchemy in different ways promises and teaches; equally, too, you who willingly undergo toil and vexations, and wish not to be freed from them, until you have attained your rewards, and the fulfilment of the promises made to you; experience teaches this every day, that out of thousands of you not even one accomplishes his desire. Is this a failure of Nature or of Art? I say, no; but it is rather the fault of fate, or of the unskilfulness of the operator.

Since, therefore, the characters of the signs, of the stars and planets of heaven, together with the other names, inverted words, receipts, materials, and instruments are thoroughly well known to such as are acquainted with this art, it would be altogether superfluous to recur to these same subjects in the present book, although the use of such signs, names, and characters at the proper time is by no means without advantage.

But herein will be noticed another way of treating Alchemy different from the previous method, and deduced by Seven Canons from the sevenfold series of the metals. This, indeed, will not give scope for a pompous parade of words, but, nevertheless, in the consideration of those Canons everything which should be separated from Alchemy will be treated at sufficient length, and, moreover, many secrets of other things are herein contained. Hence, too, result certain marvellous speculations and new operations which frequently

differ from the writings and opinions of ancient operators and natural philosophers, but have been discovered and confirmed by full proof and experimentation.

Moreover, in this Art nothing is more true than this, though it be little known and gains small confidence. All the fault and cause of difficulty in Alchemy, whereby very many persons are reduced to poverty, and others labour in vain, is wholly and solely lack of skill in the operator, and the defect or excess of materials, whether in quantity or quality, whence it ensues that, in the course of operation, things are wasted or reduced to nothing. If the true process shall have been found, the substance itself while transmuting approaches daily more and more towards perfection. The straight road is easy, but it is found by very few.

Sometimes it may happen that a speculative artist may, by his own eccentricity, think out for himself some new method in Alchemy, be the consequence anything or nothing. He need do nought in order to reduce something into nothing, and again bring back something out of nothing. Yet this proverb of the incredulous is not wholly false. Destruction perfects that which is good ; for the good cannot appear on account of that which conceals it. The good is least good whilst it is thus concealed. The concealment must be removed that so the good may be able freely to appear in its own brightness. For example, the mountain, the sand, the earth, or the stone in which a metal has grown is such a concealment. Each one of the visible metals is a concealment of the other six metals.

By the element of fire all that is imperfect is destroyed and taken away, as, for instance, the five metals, Mercury, Jupiter, Mars, Venus, and Saturn.* On the other hand, the perfect metals, Sol and Luna, are not consumed in that same fire. They remain in the fire : and at the same time, out of the other imperfect ones which are destroyed, they assume their own body and become visible to the eyes. How, and by what method, this comes about can be gathered from the Seven Canons. Hence it may be learnt what are the nature and property of each metal, what it effects with the other metals, and what are its powers in commixture with them.

But this should be noted in the very first place : that these Seven Canons cannot be perfectly understood by every cursory reader at a first glance or a single reading. An inferior intelligence does not easily perceive occult and abstruse subjects. Each one of these Canons demands no slight discussion. Many persons, puffed up with pride, fancy they can easily comprehend all which this book comprises. Thus they set down its contents as useless and futile, thinking they have something far better of their own, and that therefore they can afford to despise what is here contained.

* The three prime substances are proved only by fire, which manifests them pure, naked, clean, and simple. In the absence of all ordeal by fire, there is no proving of a substance possible. For fire tests everything, and when the impure matter is separated the three pure substances are displayed.—*De Origine Morborum ex Tribus Primis Substantiis-Paramirum*, Lib. I., c. 1. Fire separates that which is constant or fixed from that which is fugitive or volatile.—*De Morbis Metallicis*, Lib. II., Tract I. Fire is the father or active principle of separation.—"Third Fragment on Tartar," from the *Fragmenta Medica*.

THE CŒLUM PHILOSOPHORUM.

PART I.

THE SEVEN CANONS OF THE METALS.

THE FIRST CANON.

CONCERNING THE NATURE AND PROPERTIES OF MERCURY.*

ALL things are concealed in all. One of them all is the concealer of the rest—their corporeal vessel, external, visible, and movable. All liquefactions are manifested in that vessel. For the vessel is a living and corporeal spirit, and so all coagulations or congelations enclosed in it, when prevented from flowing and surrounded, are not therewith content. No name can be found for this liquefaction, by which it may be designated; still less can it be found for its origin. And since no heat is so strong as to be equalised therewith, it should be compared to the fire of Gehenna. A liquefaction of this kind has no sort of connection with others made by the heat of natural fire, or congelated or coagulated by natural cold. These congelations, through their weakness, are unable to obtain in Mercury, and therefore, on that account, he altogether contemns them. Hence one may gather that elementary powers, in their process of destruction, can add nothing to, nor take away anything from, celestial powers (which are called Quintessence or its elements), nor have they any capacity for operating. Celestial and infernal powers do not obey the four elements, whether they be dry, moist, hot, or cold. No one of them has the faculty of acting against a Quintessence; but each one contains within itself its own powers and means of action.†

* By the mediation of Vulcan, or fire, any metal can be generated from Mercury. At the same time, Mercury is imperfect as a metal; it is semi-generated and wanting in coagulation, which is the end of all metals. Up to the half-way point of their generation all metals are Mercury. Gold, for example, is Mercury; but it loses the Mercurial nature by coagulation, and although the properties of Mercury are present in it, they are dead, for their vitality is destroyed by coagulation.—*De Morbis Metallicis*, Lib. III., Tract II., c. 2. The essences and arcanas which are latent in all the six metals are to be found in the substance of Mercury.—*Ibid.*, c. 3. There are two genera of Mercury, the fixed Mercury of earth and another kind which descends from the daily constellation.—*Ibid.*, Lib. I., Tract II., c. 4. As there is a red and white Sulphur of Marcasites, a yellow, red, and black Sulphur of Talc, a purple and black Sulphur of the Cachimiæ, a Sulphur of Cinnabar, and, in like manner, of marble, amethyst, etc., so is there a special Mercury of Copper, Plumbago, Zinc, Arsenic, etc.—*Ibid.* Mercury is not Quicksilver, for Mercury is dead, while Quicksilver is living.—*De Hydropisi.*

† Nothing of true value is located in the body of a substance, but in the virtue. And this is the principle of the Quintessence, which reduces, say, 20lbs. into a single ounce, and that ounce far exceeds the entire 20lbs. in potency. Hence the less there is of body, the more in proportion is the virtue.—*De Origine Morborum Invisibilium*, Lib. IV.

THE SECOND CANON.

Concerning the Nature and Properties of Jupiter.

In that which is manifest (that is to say, the body of Jupiter) the other six corporeal metals are spiritually concealed, but one more deeply and more tenaciously than another. Jupiter has nothing of a Quintessence in his composition, but is of the nature of the four elementaries. On this account his liquefaction is brought about by the application of a moderate fire, and, in like manner, he is coagulated by moderate cold. He has affinity with the liquefactions of all the other metals. For the more like he is to some other nature, the more easily he is united thereto by conjunction. For the operation of those nearly allied is easier and more natural than of those which are remote. The remote body does not press upon the other. At the same time, it is not feared, though it may be very powerful. Hence it happens that men do not aspire to the superior orders of creation, because they are far distant from them, and do not see their glory. In like manner, they do not much fear those of an inferior order, because they are remote, and none of the living knows their condition or has experienced the misery of their punishment. For this cause an infernal spirit is accounted as nothing. For more remote objects are on that account held more cheaply and occupy a lower place, since according to the propriety of its position each object turns out better, or is transmuted. This can be proved by various examples.

The more remote, therefore, Jupiter is found to be from Mars and Venus, and the nearer Sol and Luna, the more "goldness" or "silveriness," if I may so say, it contains in its body, and the greater, stronger, more visible, more tangible, more amiable, more acceptable, more distinguished, and more true it is found than in some remote body. Again, the more remote a thing is, of the less account is it esteemed in all the respects aforesaid, since what is present is always preferred before what is absent. In proportion as the nearer is clear the more remote is occult. This, therefore, is a point which you, as an Alchemist, must seriouly debate with yourself, how you can relegate Jupiter to a remote and abstruse place, which Sol and Luna occupy, and how, in turn, you can summon Sol and Luna from remote positions to a near place, where Jupiter is corporeally posited; so that, in the same way, Sol and Luna also may really be present there corporeally before your eyes. For the transmutation of metals from imperfection to perfection there are several practical receipts. Mix the one with the other. Then again separate the one pure from the other. This is nothing else but the process of permutation, set in order by perfect alchemical labour. Note that Jupiter has much gold and not a little silver. Let Saturn and Luna be imposed on him, and of the rest Luna will be augmented.*

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* Tin, or Jupiter, is pure Mercury coagulated with a small quantity of Salt, but combined with a larger proportion of white Sulpbur. It derives its colours, white, yellow, or red, from its Mercury. Its sublimation is also by Mercury, and its resolution by Salt, and it is sublimed and resolved by these.—*De Elemento Aquæ*, Tract III., c. 6.

THE THIRD CANON.

Concerning Mars and His Properties.

The six occult metals have expelled the seventh from them, and have made it corporeal, leaving it little efficacy, and imposing on it great hardness and weight. This being the case, they have shaken off all their own strength of coagulation and hardness, which they manifest in this other body. On the contrary, they have retained in themselves their colour and liquefaction, together with their nobility. It is very difficult and laborious for a prince or a king to be produced out of an unfit and common man. But Mars acquires dominion with strong and pugnacious hand, and seizes on the position of king. He should, however, be on his guard against snares, that he be not led captive suddenly and unexpectedly. It must also be considered by what method Mars may be able to take the place of king, and Sol and Luna, with Saturn, hold the place of Mars.*

THE FOURTH CANON.

Concerning Venus and Its Properties.

The other six metals have rendered Venus an extrinsical body by means of all their colour and method of liquefaction. It may be necessary, in order to understand this, that we should show, by some examples, how a manifest thing may be rendered occult, and an occult thing rendered materially manifest by means of fire. Whatever is combustible can be naturally transmuted by fire from one form into another, namely, into lime, soot, ashes, glass, colours, stones, and earth. This last can again be reduced to many new metallic bodies. If a metal, too, be burnt, or rendered fragile by old rust, it can again acquire malleability by applications of fire.†

THE FIFTH CANON.

Concerning the Nature and Properties of Saturn.

Of his own nature Saturn speaks thus: The other six have cast me out as their examiner. They have thrust me forth from them and from a spiritual place. They have also added a corruptible body as a place of abode, so that I may be what they neither are nor desire to become. My six brothers are spiritual, and thence it ensues that so often as I am put in the fire they penetrate my body and, together with me, perish in the fire, Sol and Luna

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* In the generation of Iron there is a larger proportion of Salt and Mercury, while the red Sulphur from which copper proceeds is present in a smaller quantity. It contains also a cuprine salt, but not in equal proportion with Mercury. Its constituents are its own body, which preponderates; then comes Salt, afterwards Mercury, and, lastly, Sulphur. When there is more Salt than the composition of Sulphur requires, the metal can in no wise be made, for it depends upon an equal weight of each. For fluxibility proceeds from Mercury and coagulation from Salt. Accordingly, if there be too much Salt it becomes too hard.—*De Elemento Aquæ*, Lib. IV., Tract III., c. 4.

† Venus is the first metal generated by the Archeus of Nature from the three prime principles after the marcasites and cachimiæ have been separated from these. It is formed of the gross redness which is purged off from the primal Sulphur, of the light red expelled in like manner from the Mercury, and of the deep yellow separated in the purification of the prime Salt by this same Archeus.—*Ibid.*, c. 3.

excepted. These are purified and ennobled in my water. My spirit is a water softening the rigid and congelated bodies of my brothers. Yet my body is inclined to the earth. Whatever is received into me becomes conformed thereto, and by means of us is converted into one body. It would be of little use to the world if it should learn, or at least believe, what lies hid in me, and what I am able to effect. It would be more profitable it should ascertain what I am able to do with myself. Deserting all the methods of the Alchemists, it would then use only that which is in me and can be done by me. The stone of cold is in me. This is a water by means of which I make the spirits of the six metals congeal into the essence of the seventh, and this is to promote Sol with Luna.*

Two kinds of Antimony are found: one the common black, by which Sol is purified when liquefied therein. This has the closest affinity with Saturn. The other kind is the white, which is also called Magnesia and Bismuth. It has great affinity with Jupiter, and when mixed with the other Antimony it augments Luna.

THE SIXTH CANON.

Concerning Luna and the Properties thereof.

The endeavour to make Saturn or Mars out of Luna involves no lighter or easier work than to make Luna, with great gain, out of Mercury, Jupiter, Mars, Venus, or Saturn. It is not useful to transmute what is perfect into what is imperfect, but the latter into the former. Nevertheless, it is well to know what is the material of Luna, or whence it proceeds. Whoever is not able to consider or find this out will neither be able to make Luna. It will be asked, What is Luna? It is among the seven metals which are spiritually concealed, itself the seventh, external, corporeal, and material. For this seventh always contains the six metals spiritually hidden in itself. And the six spiritual metals do not exist without one external and material metal. So also no corporeal metal can have place or essence without those six spiritual ones. The seven corporeal metals mix easily by means of liquefaction, but this mixture is not useful for making Sol or Luna. For in that mixture each metal remains in its own nature, or fixed in the fire, or flies from it. For example, mix, in any way you can, Mercury, Jupiter, Saturn, Mars, Venus, Sol, and Luna. It will not thence result that Sol and Luna will so change the other five that, by the agency of Sol and Luna, these will become Sol and Luna. For though all be liquefied into a single mass, nevertheless each remains in its nature whatever it is. This is the judgment which must be passed on corporeal mixture. But concerning spiritual mixture and

* Lead is the blackness of the three first principles, which, however, is by no means a superfluity, but a peculiar metallic nature in them existing. For all metals are latent in Mercury, and they are all only Mercury. The same is to be concluded concerning Salt and Sulphur. Thus, as copper is the abundant redness of the three principles, so Lead is their blackness; but, at the same time, there are four colours concealed therein – the blackness, purged off from the three principles; redness, which contains a precipitate out of Mercury; whiteness, from the calcination of Mercury; and a certain yellowness, derived from Mercury. Thus the grossness and the colours are alike due to Mercury, and Lead is, in fact, a black Mercury. – *Ibid.*, c. 5.

communion of the metals, it should be known that no separation mortification is spiritual, because such spirits can never exist without bo Though the body should be taken away from them and mortified a hun times in one hour, nevertheless, they would always acquire another n more noble than the former. And this is the transposition of the metals f one death to another, that is to say, from a lesser degree into one greater higher, namely, into Luna; and from a better into the best and r most perfect, that is, into Sol, the brilliant and altogether royal metal. most true, then, as frequently said above, that the six metals alv generate a seventh, or produce it from themselves clear in its *esse*.

A question may arise: If it be true that Luna and every metal derive origin and is generated from the other six, what is then its property anc nature? To this we reply: From Saturn, Mercury, Jupiter, Mars, Venus, Sol, nothing and no other metal than Luna could be made. The caus that each metal has two good virtues of the other six, of which altoge there are twelve. These are the spirit of Luna, which thus in a few w may be made known. Luna is composed of the six spiritual metals and virtues, whereof each possesses two. Altogether, therefore, twelve are posited in one corporeal metal, which are compared to the seven planets the twelve celestial signs. Luna has from the planet Mercury, and Aquarius and Pisces, its liquidity and bright white colour. ☿, ♒, anc So Luna has from Jupiter, with ♐ (Sagittarius) and Taurus, its white cc and its great firmness in fire. ♃, ♐, ♉. Luna has from Mars, with Ca and Aries, its hardness and its clear sound. ♂, ♋, and ♈. Luna has Venus, with Gemini and Libra, its measure of coagulation and its malleab ♀, ♊, and Libra. From Saturn, with Virgo and ♏ (Scorpio), its homog ous body, with gravity. ♄, ♍, and ♏. From Sol, with Leo and Virgc spotless purity and great constancy against the power of fire. ☉, ♌, anc Such is the knowledge of the natural exaltation and of the course of the s and body of Luna, with its composite nature and wisdom briefly summaris

Furthermore, it should be pointed out what kind of a body such me spirits acquire in their primitive generation by means of celestial influx. the metal-digger, when he has crushed the stone, contemptible as it is ir pearance, liquefies it, corrupts it, and altogether mortifies it with fire. this metallic spirit, in such a process of mortification, receives a better and noble body, not friable but malleable. Then comes the Alchemist, who a corrupts, mortifies, and artificially prepares such a metallic body. Thus more that spirit of the metal assumes a more noble and more perfect b putting itself forward clearly into the light, except it be Sol or Luna. at last the metallic spirit and body are perfectly united, are safe from corruption of elementary fire, and also incorruptible.*

* When the three prime principles have been purged of their superfluities, and from the said superfluit imperfect metals have been generated, there remains nothing gross or crude, either in colour or substance, but very subtle nature of a white and purple hue. This is the most pure quality of Mercury, Salt, and Sulphur, mo

THE SEVENTH CANON.

Concerning the Nature of Sol and its Properties.

The seventh after the six spiritual metals is corporeally Sol, which in itself is nothing but pure fire. What in outward appearance is more beautiful, more brilliant, more clear and perceptible, a heavier, colder, or more homogeneous body to see? And it is easy to perceive the cause of this, namely, that it contains in itself the congelations of the other six metals, out of which it is made externally into one most compact body. Its liquefaction proceeds from elementary fire, or is caused by the liquations of Mercury, with Pisces and Aquarius, concealed spiritually within it. The most manifest proof of this is that Mercury is easily mingled corporeally with the Sun as in an embrace. But for Sol, when the heat is withdrawn and the cold supervenes after liquefaction, to coagulate and to become hard and solid, there is need of the other five metals, whose nature it embraces in itself—Jupiter, Saturn, Mars, Venus, Luna. In these five metals the cold abodes with their regimens are especially found. Hence it happens that Sol can with difficulty be liquefied without the heat of fire, on account of the cold whereof mention has been made. For Mercury cannot assist with his natural heat or liquefaction, or defend himself against the cold of the five metals, because the heat of Mercury is not sufficient to retain Sol in a state of liquefaction. Wherefore Sol has to obey the five metals rather than Mercury alone. Mercury itself has no office of itself save always to flow. Hence it happens that in coagulations of the other metals it can effect nothing, since its nature is not to make anything hard or solid, but liquid. To render fluid is the nature of heat and life, but cold has the nature of hardness, consolidation, and immobility, which is compared to death. For example, the six cold metals, Jupiter, Venus, Saturn, Mars, Venus, Luna, if they are to be liquefied must be brought to that condition by the heat of fire. Snow or ice, which are cold, will not produce this effect, but rather will harden. As soon as ever the metal liquefied by fire is removed therefrom, the cold, seizing upon it, renders it hard, congelated, and immovable of itself. But in order that Mercury may remain fluid and alive continually, say, I pray you, whether this will be affected with heat or cold? Whoever answers that this is brought about by a cold and damp nature, and that it has its life from cold—the promulgator of this opinion, having no knowledge of Nature, is led away by the vulgar. For the vulgar man judges only falsely, and always holds firmly on to his error. So then let him who loves truth withdraw therefrom. Mercury, in fact, lives not at all from cold but from a warm and fiery nature.

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and excellent in form, substance, essence, and colour. These two essences, namely, the white and the purple, are separated by the Archeus, and out of the first, fixed and coagulated, is formed silver, while from the purple there is generated gold, which is the most noble Sulphur, Salt, and Mercury, separated from all other colours, and consisting of purple alone. Its clayey or yellow appearance is accounted for by the subtlety and clearness of the metal, because all the dull colours are removed. In Silver the most prevalent colours are green and blue, which are respectively derived from the Mercury and the Salt, the Sulphur contributing nothing in the matter of colouring, On the other hand, in gold the purple colour is derived from Salt, the pellucid redness from Sulphur, and the yellow from Mercury. —*Ibid.*, c. 8.

Whatever lives is fire, because heat is life, but cold the occasion of death. Tl fire of Sol is of itself pure, not indeed alive, but hard, and so far shews tl colour of sulphur in that yellow and red are mixed therein in due proportio The five cold metals are Jupiter, Mars, Saturn, Venus, and Luna, which assig to Sol their virtues ; according to cold, the body itself ; according to fir colour ; according to dryness, solidity ; according to humidity, weight ; ar out of brightness, sound. But that gold is not burned in the element terrestrial fire, nor is even corrupted, is effected by the firmness of Sol. F one fire cannot burn another, or even consume it ; but rather if fire be add to fire it is increased, and becomes more powerful in its operations. Tl celestial fire which flows to us on the earth from the Sun is not such a fire there is in heaven, neither is it like that which exists upon the earth, but th celestial fire with us is cold and congealed, and it is the body of the Su Wherefore the Sun can in no way be overcome by our fire. This on happens, that it is liquefied, like snow or ice, by that same celestial Su Fire, therefore, has not the power of burning fire, because the Sun is fir which, dissolved in heaven, is coagulated with us.

Gold is in its Essence three-fold	1 *Celestial* 2 *Elementary* 3 *Metallic*	*and is*	*Dissolved* *Fluid* *Corporeal.*	

THE END OF THE SEVEN CANONS.

THE CŒLUM PHILOSOPHORUM.

PART II.

CERTAIN TREATISES AND APPENDICES ARISING OUT OF THE SEVEN CANONS.

God and Nature do Nothing in Vain.

THE eternal position of all things, independent of time, without beginning or end, operates everywhere. It works essentially where otherwise there is no hope. It accomplishes that which is deemed impossible. What appears beyond belief or hope emerges into truth after a wonderful fashion.

Note on Mercurius Vivus.

Whatever tinges with a white colour has the nature of life, and the properties and power of light, which causally produces life. Whatever, on the other hand, tinges with blackness, or produces black, has a nature in common with death, the properties of darkness, and forces productive of death. The earth with its frigidity is a coagulation and fixation of this kind of hardness. For the house is always dead; but he who inhabits the house lives. If you can discover the force of this illustration you have conquered.

Tested liquefactive powder.
Burn fat verbena.*

Recipe.—Salt nitre, four ounces; a moiety of sulphur; tartar, one ounce. Mix and liquefy.

What is to be thought concerning the Congelation of Mercury.

To mortify or congeal Mercury, and afterwards seek to turn it into Luna, and to sublimate it with great labour, is labour in vain, since it involves a dissipation of Sol and Luna existing therein. There is another method, far different and much more concise, whereby, with little waste of Mercury and less expenditure of toil, it is transmuted into Luna without congelation. Any one can at pleasure learn this Art in Alchemy, since it is so simple and easy; and by it, in a short time, he could make any quantity of silver and

* Verbenas adole pingues, et mascula tura.—Virg., Ecl. viii. 65.

gold. It is tedious to read long descriptions, and everybody wishes t advised in straightforward words. Do this, then; proceed as follows, you will have Sol and Luna, by help whereof you will turn out a very rich r Wait awhile, I beg, while this process is described to you in few wc and keep these words well digested, so that out of Saturn, Mercury, Jupiter you may make Sol and Luna. There is not, nor ever will be, an so easy to find out and practise, and so effective in itself. The methc making Sol and Luna by Alchemy is so prompt that there is no more nee books, or of elaborate instruction, than there would be if one wished to v about last year's snow.

Concerning the Receipts of Alchemy.

What, then, shall we say about the receipts of Alchemy, and about diversity of its vessels and instruments? These are furnaces, glasses, waters, oils, limes, sulphurs, salts, saltpetres, alums, vitriols, chrysoc copper-greens, atraments, auri-pigments, fel vitri, ceruse, red earth, th wax, lutum sapientiæ, pounded glass, verdigris, soot, testæ ovorum, croc Mars, soap, crystal, chalk, arsenic, antimony, minium, elixir, lazurium, g leaf, salt-nitre, sal ammoniac, calamine stone, magnesia, bolus armenus, many other things. Moreover, concerning preparations, putrefacti digestions, probations, solutions, cementings, filtrations, reverberati calcinations, graduations, rectifications, amalgamations, purgations, etc., these alchemical books are crammed. Then, again, concerning herbs, r seeds, woods, stones, animals, worms, bone dust, snail shells, other sl and pitch. These and the like, whereof there are some very far-fetche Alchemy, are mere incumbrances of work; since even if Sol and Luna coul made by them they rather hinder and delay than further one's purpose. I is not from these—to say the truth—that the Art of making Sol and Luna be learnt. So, then, all these things should be passed by, because they no effect with the five metals, so far as Sol and Luna are concerned. Som may ask, What, then, is this short and easy way, which involves no diffic and yet whereby Sol and Luna can be made? Our answer is, this has fully and openly explained in the Seven Canons. It would be lost la should one seek further to instruct one who does not understand these would be impossible to convince such a person that these matters could b easily understood, but in an occult rather than in an open sense.

The Art is this: After you have made heaven, or the sphere of Sa with its life to run over the earth, place on it all the planets, or such, or more, as you wish, so that the portion of Luna may be the smallest. Le run, until heaven, or Saturn, has entirely disappeared. Then all those pl will remain dead with their old corruptible bodies, having meanwhile obt another new, perfect, and incorruptible body.

That body is the spirit of heaven. From it these planets again rece body and life, and live as before. Take this body from the life and the e

Keep it. It is Sol and Luna. Here you have the Art altogether, clear and entire. If you do not yet understand it, or are not practised therein, it is well. It is better that it should be kept concealed, and not made public.

How to Conjure the Crystal so that all things may be seen in it.

To conjure is nothing else than to observe anything rightly, to know and to understand what it is. The crystal is a figure of the air. Whatever appears in the air, movable or immovable, the same appears also in the speculum or crystal as a wave. For the air, the water, and the crystal, so far as vision is concerned, are one, like a mirror in which an inverted copy of an object is seen.

Concerning the Heat of Mercury.

Those who think that Mercury is of a moist and cold nature are plainly in error, because it is by its nature in the highest degree warm and moist, which is the cause of its being in a constant state of fluidity. If it were of a moist and cold nature it would have the appearance of frozen water, and be always hard and solid, so that it would be necessary to liquefy it by the heat of fire, as in the case of the other metals. But it does not require this, since it has liquidity and flux from its own heat naturally inborn in it, which keeps it in a state of perpetual fluidity and renders it "quick," so that it can neither die, nor be coagulated, nor congealed. And this is well worth noticing, that the spirits of the seven metals, or as many of them as have been commingled, as soon as they come into the fire, contend with one another, especially Mercury, so that each may put forth its powers and virtues in the endeavour to get the mastery in the way of liquefying and transmuting. [One seizes on the virtue, life, and form of another, and assigns some other nature and form to this one. So then the spirits or vapours of the metals are stirred up by the heat to operate mutually one upon the other, and transmute from one virtue to another, until perfection and purity are attained.]

But what must be done besides to Mercury in order that its moisture and heat may be taken away, and in their place such an extreme cold introduced as to congeal, consolidate, and altogether mortify the Mercury? Do what follows in the sentence subjoined: Take pure Mercury closely shut up in a silver pixis. Fill a jar with fragments of lead, in the midst of which place the pixis. Let it melt for twenty-four hours, that is, for a natural day. This takes away from Mercury his occult heat, adds an external heat, and contributes the internal coldness of Saturn and Luna (which are both planets of a cold nature), whence and whereby the Mercury is compelled to congeal, consolidate, and harden.

Note also that the coldness (which Mercury needs in its consolidation and mortification) is not perceptible by the external sense, as the cold of snow or of ice is, but rather, externally, there is a certain amount of apparent heat. Just in the same way is it with the heat of Mercury, which is the cause of its fluidity. It is not an external heat, perceptible in the same way as one of our

qualities. Nay, externally a sort of coldness is perceptible. Whence Sophists (a race which has more talk than true wisdom) falsely assert Mercury is cold and of a moist nature, so that they go on and advise t congeal it by means of heat; whereas heat only renders it more fluid, as daily find out to their own loss rather than gain.

True Alchemy which alone, by its unique Art, teaches how to fabr Sol and Luna from the five imperfect metals, allows no other receipt this, which well and truly says: Only from metals, in metals, by metals, with metals, are perfect metals made, for in some things is Luna and in c metals is Sol.

What Materials and Instruments are required in Alchemy.

There is need of nothing else but a foundry, bellows, tongs, hamn cauldrons, jars, and cupels made from beechen ashes. Afterwards, la Saturn, Jupiter, Mars, Sol, Venus, Mercury, and Luna. Let them op finally up to Saturn.

The Method of Seeking Minerals.

The hope of finding these in the earth and in stones is most uncer and the labour very great. However, since this is the first mode of ge them, it is in no way to be despised, but greatly commended. Such a desi appetite ought no more to be done away with than the lawful inclinatio young people, and those in the prime of life, to matrimony. As the bees for roses and other flowers for the purpose of making honey and wax, so, men—apart from avarice or their own aggrandisement—should seek to ex metal from the earth. He who does not seek it is not likely to fin God dowers men not only with gold or silver, but also with poverty, squ and misery. He has given to some a singular knowledge of metals minerals, whereby they have obtained an easier and shorter metho fabricating gold and silver, without digging and smelting them, than they commonly accustomed to, by extracting them from their primitive bo And this is the case not only with subterranean substances, but by ce arts and knowledge they have extracted them from the five metals gene (that is to say, from metals excocted from minerals which are impe and called metals), viz., from Mercury, Jupiter, Saturn, Mars and Ve from all of which, and from each of them separately, Sol and Luna ca made, but from one more easily than from another. Note, that Sol and I can be made easily from Mercury, Saturn, and Jupiter, but from Mars Venus with difficulty. It is possible to make them, however, but with addition of Sol and Luna. Out of Magnesium and Saturn comes Luna, out of Jupiter and Cinnabar pure Sol takes its rise. The skilful a however (how well I remember!), will be able by diligent consideratio prepare metals so that, led by a true method of reasoning, he can pro the perfection of metallic transformation more than do the courses of twelve signs and the seven planets. In such matters it is quite superfluo

watch these courses, as also their aspects, good or bad days or hours, the prosperous or unlucky condition of this or that planet, for these matters can do no good, and much less can they do harm in the art of natural Alchemy. If otherwise, and you have a feasible process, operate when you please. If, however, there be anything wanting in you or your mode of working, or your understanding, the planets and the stars of heaven will fail you in your work.

If metals remain buried long enough in the earth, not only are they consumed by rust, but by long continuance they are even transmuted into natural stones, and there are a great many of these; but this is known to few. For there is found in the earth old stone money of the heathens, printed with their different figures. These coins were originally metallic, but through the transmutation brought about by Nature, they were turned into stone.

What Alchemy is.

Alchemy is nothing else but the set purpose, intention, and subtle endeavour to transmute the kinds of the metals from one to another.* According to this, each person, by his own mental grasp, can choose out for himself a better way and Art, and therein find truth, for the man who follows a thing up more intently does find the truth. It is highly necessary to have a correct estimation of stars and of stones, because the star is the informing spirit of all stones. For the Sol and Luna of all the celestial stars are nothing but one stone in itself; and the terrestrial stone has come forth from the celestial stone; through the same fire, coals, ashes, the same expulsions and repurgations as that celestial stone, it has been separated and brought, clear and pure in its brightness. The whole ball of the earth is only something thrown off, concrete, mixed, corrupted, ground, and again coagulated, and gradually liquefied into one mass, into a stony work, which has its seat and its rest in the midst of the firmamental sphere.

Further it is to be remarked that those precious stones which shall forthwith be set down have the nearest place to the heavenly or sidereal ones in point of perfection, purity, beauty, brightness, virtue, power of withstanding fire, and incorruptibility, and they have been fixed with other stones in the earth.†

They have, therefore, the greatest affinity with heavenly stones and with the stars, because their natures are derived from these. They are found by

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* Alchemy is, so to speak, a kind of lower heaven, by which the sun is separated from the moon, day from night, medicine from poison, what is useful from what is refuse.—*De Coltca.* Therefore learn Alchemy, which is otherwise called Spagyria. This teaches you to discern between the true and the false. Such a Light of Nature is it that it is a mode of proof in all things, and walks in light. From this light of Nature we ought to know and speak, not from mere phantasy, whence nothing is begotten save the four humours and their compounds, augmentation, stagnation, and decrease, with other trifles of this kind. These proceed, not from the clear intellect, that full treasure-house of a good man, but rather are based on a fictitious and insecure foundation.—*Paramirum*, Lib. I., c. 3.

† When the occult dispenser of Nature in the prime principles, that is to say, the potency called Ares, has produced the gross and rough genera of stones, and no further grossness remains, a diaphanous and subtle substance remains, out of which the Archeus of Nature generates the precious stones or gems.—*De Elemento Aquæ*, Lib. IV., Tract IV., c. 10.

men in a rude environment, and the common herd (whose property it take false views of things) believe that they were produced in the same l where they are found, and that they were afterwards polished, carried aro and sold, and accounted to be great riches, on account of their colc beauty, and other virtues. A brief description of them follows :—

The Emerald. This is a green transparent stone. It does good to eyes and the memory. It defends chastity; and if this be violatec him who carries it, the stone itself does not remain perfect.*

The Adamant. A black crystal called Adamant or else Evax, on acc of the joy which it is effectual in impressing on those who carry it. It is c obscure and transparent blackness, the colour of iron. It is the hardest of but is dissolved in the blood of a goat. Its size at the largest does not ex that of a hazel nut.†

The Magnet Is an iron stone, and so attracts iron to itself.‡

The Pearl. The Pearl is not a stone, because it is produced in sea sh It is of a white colour. Seeing that it grows in animated beings, in me in fishes, it is not properly of a stony nature, but properly a depraved (ot wise a transmuted) nature supervening upon a perfect work.§

The Jacinth Is a yellow, transparent stone. There is a flower of same name which, according to the fable of the poets, is said to have be man.‖

The Sapphire Is a stone of a celestial colour and a heavenly nature

The Ruby Shines with an intensely red nature.**

The Carbuncle. A solar stone, shining by its own nature like the su

The Coral Is a white or red stone, not transparent. It grows in sea, out of the nature of the water and the air, into the form of wood shrub ; it hardens in the air, and is not capable of being destroyed in fire.

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* The body of the Emerald is derived from a kind of petrine Mercury. It receives from the same its coagulated with spirit of Salt.—*Ibid.*, c. 12.

† The most concentrated hardness of all stones combines for the generation of the adamant. The white ad has its body from Mercury, and its coagulation from the spirit of Salt.—*Ibid.*, c. 14.

‡ Fortified by experience, which is the mistress of all things, and by mature theory, based on experience, I that the Magnet is a stone which not only undeniably attracts steel and iron, but has also the same power o matter of all diseases in the whole body of man.—*De Corallis.* See *Herbarius Theophrasti.*

§ The Pearl is a seed of moisture. It generates milk abundantly in women if they are deficient the *De Aridura.*

‖ The Jacinth, or Hyacinth, is a gem of the same genus as the Carbuncle, but is inferior thereto in its na *De Elemento Aquæ*, Lib. IV., Tract IV., c. 11.

¶ In the matter of body and colour the Sapphire is generated from Mercury (the prime principle). It is over white Sulphur and white Salt from a pallid petrine Mercury. Hence white Sapphires frequently occur bec white Mercury concurs in the formation. In like manner a lute-coloured Mercury sometimes produces a cl hue.—*Ibid.*, c. 15.

** The Ruby and similar gems possessing a ruddy hue are generated from the red of Sulphur, and their boc petrine Mercury. For Mercury is the body of every precious stone.—*Ibid.*, c. 13.

†† The Carbuncle is formed of the most transparent matter which is conserved in the three principles. Mer the body and Sulphur the colouring thereof, with a modicum of the spirit of Salt, on account of the coagulation light abounds therein, because Sulphur contains in itself a clear quality of light, as the art of its transm demonstrates.—*Ibid.*, c. 11.

‡‡ There are two species of red Corals—one a dull red, which varies between sub-purple and semi-black ; the resplendent and brilliant red. As the colours differ, so also do the virtues. There is also a whitish species w almost destitute of efficacy. In a word, as the Coral diminishes in redness, so it weakens in its qualities.—*Her Theophrasti; De Corallis.*

The Chalcedony Is a stone made up of different colours, occupying a middle place between obscurity and transparency, mixed also with cloudiness, and liver coloured. It is the lowest of all the precious stones.*

The Topaz Is a stone shining by night. It is found among rocks.†

The Amethyst Is a stone of a purple and blood colour.‡

The Chrysoprasus Is a stone which appears like fire by night, and like gold by day.

The Crystal Is a white stone, transparent, and very like ice. It is sublimated, extracted, and produced from other stones.§

As a pledge and firm foundation of this matter, note the following conclusion. If anyone intelligently and reasonably takes care to exercise himself in learning about the metals, what they are, and whence they are produced: he may know that our metals are nothing else than the best part and the spirit of common stones, that is, pitch, grease, fat, oil, and stone. But this is least pure, uncontaminated, and perfect, so long as it remains hidden or mixed with the stones. It should therefore be sought and found in the stones, be recognised in them, and extracted from them, that is, forcibly drawn out and liquefied. For then it is no longer a stone, but an elaborate and perfect metal, comparable to the stars of heaven, which are themselves, as it were, stones separated from those of earth.

Whoever, therefore, studies minerals and metals must be furnished with such reason and intelligence that he shall not regard only those common and known metals which are found in the depth of the mountains alone. For there is often found at the very surface of the earth such a metal as is not met with at all, or not equally good, in the depths. And so every stone which comes to our view, be it great or small, flint or simple rock, should be carefully investigated and weighed with a true balance, according to its nature and properties. Very often a common stone, thrown away and despised, is worth more than a cow. Regard must not always be had to the place of digging from which this stone came forth; for here the influence of the sky prevails. Everywhere here is presented to us earth, or dust, or sand, which often contain much gold or silver, and this you will mark.

HERE ENDS THE CŒLUM PHILOSOPHORUM.

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* The gem Chalcedony is extracted from Salt.—*Chirurgia Magna; De Tumoribus, etc., Morbi Gallici*, Lib. III., c. 6.

† The Topaz is an extract from the minera of Mars, and is a transplanted Iron.—*Ibid.*

‡ The Amethyst is an extract of Salt, while Marble and Chalcedony are extracted from the same principle through the Amethyst.—*Ibid.*

§ The origin of Crystals is to be referred to water. They contain within them a spirit of coagulation whereby they are coagulated, as water by the freezing and glacial stars.—*Lib. Meteorum*, c. 7.

THE BOOK CONCERNING THE TINCTURE OF TH PHILOSOPHERS.

WRITTEN AGAINST THOSE SOPHISTS BORN SINCE THE DELUGE, IN THE AG OUR LORD JESUS CHRIST, THE SON OF GOD;

By PH. THEOPHRASTUS BOMBAST, OF HOHENHEIM,

Philosopher of the Monarchia, Prince of Spagyrists, Chief Astronomer Surpassing Physician, and Trismegistus of Mechanical Arcana.

PREFACE.

SINCE you, O Sophist, everywhere abuse me with such fatuous and me cious words, on the ground that being sprung from rude Helvetia I understand and know nothing: and also because being a duly qual physician I still wander from one district to another; therefore I have posed by means of this treatise to disclose to the ignorant and inexperien what good arts existed in the first age; what my art avails against you yours against me; what should be thought of each, and how my posteri this age of grace will imitate me. Look at Hermes, Archelaus, and ot in the first age: see what Spagyrists and what Philosophers then exi By this they testify that their enemies, who are your patrons, O Sophis the present time are but mere empty forms and idols. Although this w not be attested by those who are falsely considered your authentic fathers saints, yet the ancient Emerald Table shews more art and experience in osophy, Alchemy, Magic, and the like, than could ever be taught by you your crowd of followers. If you do not yet understand, from the afore facts, what and how great treasures these are, tell me why no prince or was ever able to subdue the Egyptians. Then tell me why the Emp Diocletian ordered all the Spagyric books to be burnt (so far as he could his hands upon them). Unless the contents of those books had been knc they would have been obliged to bear still his intolerable yoke,—a y O Sophist, which shall one day be put upon the neck of yourself and colleagues.

From the middle of this age the Monarchy of all the Arts has bee length derived and conferred on me, Theophrastus Paracelsus, Princ Philosophy and of Medicine. For this purpose I have been chosen by Go

extinguish and blot out all the phantasies of elaborate and false works, of delusive and presumptuous words, be they the words of Aristotle, Galen, Avicenna, Mesva, or the dogmas of any among their followers. My theory, proceeding as it does from the light of Nature, can never, through its consistency, pass away or be changed: but in the fifty-eighth year after its millennium and a half it will then begin to flourish. The practice at the same time following upon the theory will be proved by wonderful and incredible signs, so as to be open to mechanics and common people, and they will thoroughly understand how firm and immovable is that Paracelsic Art against the triflings of the Sophists: though meanwhile that sophistical science has to have its ineptitude propped up and fortified by papal and imperial privileges. In that I am esteemed by you a mendicant and vagabond sophist, the Danube and the Rhine will answer that accusation, though I hold my tongue. Those calumnies of yours falsely devised against me have often displeased many courts and princes, many imperial cities, the knightly order, and the nobility. I have a treasure hidden in a certain city called Weinden, belonging to Forum Julii, at an inn,—a treasure which neither you, Leo of Rome, nor you, Charles the German, could purchase with all your substance. Although the signed star has been applied to the arcanum of your names, it is known to none but the sons of the divine Spagyric Art. So then, you wormy and lousy Sophist, since you deem the monarch of arcana a mere ignorant, fatuous, and prodigal quack, now, in this mid age, I determine in my present treatise to disclose the honourable course of procedure in these matters, the virtues and preparation of the celebrated Tincture of the Philosophers for the use and honour of all who love the truth, and in order that all who despise the true arts may be reduced to poverty. By this arcanum the last age shall be illuminated clearly and compensated for all its losses by the gift of grace and the reward of the spirit of truth, so that since the beginning of the world no similar germination of the intelligence and of wisdom shall ever have been heard of. In the meantime, vice will not be able to suppress the good, nor will the resources of those vicious persons, many though they be, cause any loss to the upright.

THE BOOK CONCERNING THE TINCTURE OF THE PHILOSOPHERS.

CHAPTER I.

I PHILIPPUS Theophrastus Paracelsus Bombast, say that, by Divine gr , many ways have been sought to the Tincture of the Philosophers, w finally all came to the same scope and end. Hermes Trismegistus, Egyptian, approached this task in his own method. Orus, the Greek, obse the same process. Hali, the Arabian, remained firm in his order. Albertus Magnus, the German, followed also a lengthy process. Each on these advanced in proportion to his own method; nevertheless, they all arri at one and the same end, at a long life, so much desired by the philosoph and also at an honourable sustenance and means of preserving that life in Valley of Misery. Now at this time, I, Theophrastus Paracelsus Bomb Monarch of the Arcana, am endowed by God with special gifts for this e that every searcher after this supreme philosophic work may be forcec imitate and to follow me, be he Italian, Pole, Gaul, German, or whatsoeve whosoever he be. Come hither after me, all you philosophers, astronomers, spagyrists, of however lofty a name ye may be, I will show and open to y Alchemists and Doctors, who are exalted by me with the most consumn labours, this corporeal regeneration. I will teach you the tincture, arcanum,* the quintessence, wherein lie hid the foundations of all myste and of all works. For every person may and ought to believe in another c in those matters which he has tried by fire. If any one shall have brou forward anything contrary to this method of experimentation in the Spag Art or in Medicine, there is no reason for your belief in him, since, experimenta through the agency of fire, the true is separated from the false. The ligh Nature indeed is created in this way, that by means thereof the proof or t of everything may appear, but only to those who walk in this light. With light we will teach, by the very best methods of demonstration, that all th who before me have approached this so difficult province with their own fan and acute speculations have, to their own loss, incurred the danger of tl foolishness. On which account, from my standpoint, many rustics have b

* The Arcanum of a substance is not the virtue (*virtus*) but the essence (*vis*) and the potency (*potentia*), a stronger than the virtue; nevertheless, an old error of the doctors conferred the name of virtues upon the pot essences.—*Paramirum*, Lib. IV. Many things are elsewbere set forth concerning the Quintessence, but what scribed is really a separation or extraction of the pure from the impure, not a true quintessence, and it is more con termed an Arcanum.—*Explicatio Totius Astronomiæ.*

ennobled ; but, on the other hand, through the speculative and opinionative art of these many nobles have been changed into clowns, and since they carried golden mountains in their head before they had put their hand to the fire. First of all, then, there must be learnt—digestions, distillations, sublimations, reverberations, extractions, solutions, coagulations, fermentations, fixations, and every instrument which is requisite for this work must be mastered by experience, such as glass vessels, cucurbites, circulators, vessels of Hermes, earthen vessels, baths, blast-furnaces, reverberatories, and instruments of like kind, also marble, coals, and tongs. Thus at length you will be able to profit in Alchemy and in Medicine.

But so long as, relying on fancy and opinion, you cleave to your fictitious books, you are fitted and predestinated for no one of these things.

CHAPTER II.

Concerning the Definition of the Subject and Matter of the Tincture of the Philosophers.

Before I come, then, to the process of the Tincture, it is needful that I open to you the subject thereof : for, up to the present time, this has always been kept in a specially occult way by the lovers of truth. So, then, the matter of the Tincture (when you understand me in a Spagyrical sense) is a certain thing which, by the art of Vulcan,* passes out of three essences into one essence, or it may remain. But, that I may give it its proper name, according to the use of the ancients, though it is called by many the Red Lion, still it is known by few. This, by the aid of Nature and the skill of the Artist himself, can be transmuted into a White Eagle, so that out of one two are produced ; and beyond this the brightness of gold does not shine so much for the Spagyrist as do these two when kept in one. Now, if you do not understand the use of the Cabalists and the old astronomers, you are not born by God for the Spagyric art, or chosen by Nature for the work of Vulcan, or created to open your mouth concerning Alchemical Arts. The matter of the Tincture, then, is a very great pearl and a most precious treasure, and the noblest thing next to the manifestation of the Most High and the consideration of men which can exist upon earth. This is the Lili of Alchemy and of Medicine, which the philosophers have so diligently sought after, but, through the failure of entire knowledge and complete preparation, they have not progressed to the perfect end thereof. By means of their investigations and experiments, only the

* The office of Vulcan is the separation of the good from the bad. So the Art of Vulcan, which is Alchemy, is like unto death, by which the eternal and the temporal are divided one from another. So also this art might be called the death of things.—*De Morbis Metallicis*, Lib. I., Tract III., c. 1. Vulcan is an astral and not a corporal fabricator.—*De Caduco Matricis*, Par. VI. The artist working in metals and other minerals transforms them into other colours, and in so doing his operation is like that of the heaven itself. For as the artist excocts by means of Vulcan, or the igneous element, so heaven performs the work of coction through the Sun. The Sun, therefore, is the Vulcan of heaven accomplishing coction in the earth.—*De Icteritiis*. Vulcan is the fabricator and architect of all things, nor is his habitation in heaven only, that is, in the firmament, but equally in all the other elements.—*Lib. Meteorum*, c. 4. Where the three prime principles are wanting, there also the igneous essence is absent. The Igneous Vulcan is nothing else but Sulphur, Sal Nitrum, and Mercury.—*Ibid.*, c. 5.

initial stage of the Tincture has been given to us ; but the true founda which my colleagues must imitate, has been left for me, so that no one sh mingle their shadows with our good intentions. I, by right after my experiences, correct the Spagyrists, and separate the false or the erroneous the true, since, by long investigations, I have found reasons why I shoul able justly to blame and to change diverse things. If, indeed, I had founc experiments of the ancients better than my own, I should scarcely have t up such great labours as, for the sake, the utility, and the advantage o good Alchemists, I have undergone willingly. Since, then, the subject o Tincture has been sufficiently declared, so that it scarcely could or ought t exceeded in fidelity between two brothers, I approach its preparation, and I have laid down the experiences of the first age, I wish to add my own in tions ; to which at last the Age of Grace will by-and-by give its adhe whichever of the patriarchs, O Sophist, you, in the meantime, shall made leaders.

CHAPTER III.

Concerning the Process of the Ancients for the Tincture of the Philosophers, and a more compendious Method by Paracelsu

The old Spagyrists putrefied Lili for a philosophical month, and afterw distilled therefrom the moist spirits, until at length the dry spirits elevated. They again imbued the *caput mortuum* with moist spirits, and them off from it frequently by distillation until the dry spirits were all eleva Then afterwards they united the moisture that had been drawn off and dry spirits by means of a pelican, three or four times, until the whole remained dry at the bottom. Although early experience gave this prc before fixation, none the less our ancestors often attained a perfect realisa of their wish by this method. They would, however, have had a shorter of arriving at the treasure of the Red Lion if they had learnt the agreeme Astronomy with Alchemy, as I have demonstrated it in the Apocalyps Hermes.* But since every day (as Christ says for the consolation of

* The Book of the Revelation of Hermes, interpreted by Theophrastus Paracelsus, concerning the Si Secret of the World, seems to have been first brought to light by Benedictus Figulus, and appeared as a *p résistance* in his "Golden and Blessed Casket of Nature's Marvels," of which an English translation has bee recently published. ("A Golden and Blessed Casket of Nature's Marvels." By Benedictus Figulus. No done into English from the German original published at Frankfort in the year 1608. London : James Elli Co. 8vo. 1893.) Among the many writings which have been fabulously attributed to Hermes, there does not seer any record of an *apocalypse*, and it is impossible to say what forged document may have been the subject of pretation by Paracelsus. As the collection of Figulus is now so readily accessible, it is somewhat superfluous produce the treatise here, but since this translation claims to include everything written by the physician of Hoh on the subject of Alchemy and the Universal Medicine, it is appended at this point. It should be premise Benedictus Figulus complains bitterly of the mutilation and perversion to which the works of Paracelsus were sub and the *Revelation of Hermes* seems in many parts to betray another hand, especially in its quotation of auth who are not countenanced by its reputed author.

Hermes, Plato, Aristotle, and other philosophers, flourishing at different times, who have introduced the Ar more especially have explored the secrets of inferior Creation, all these have eagerly sought a means whereby body might be preserved from decay and become endued with immortality. To them it was answered that t nothing which might deliver the mortal body from death ; but that there is One Thing which may postpone decay, youth, and prolong short human life (as with the patriarchs). For death was laid as a punishment upon our first p Adam and Eve, and will never depart from all their decsendants. Therefore, the above philosophers, and many other

faithful) has its own peculiar care, the labour for the Spagyrists before my times has been great and heavy; but this, by the help of the Holy Spirit flowing into us, will, in this last age, be lightened and made clear by my theory and practice, for all those who constantly persevere in their work with patience. For I have tested the properties of Nature, its essences and conditions, and I know its conjunction and resolution, which are the highest and greatest gift for a philosopher, and never understood by the sophists up to this time. When, therefore, the earliest age gave the first experience of the Tincture, the Spagyrists made two things out of one simple. But when afterwards, in the Middle Age, this invention had died out, their successors by diligent scrutiny afterwards came upon the two names of this simple, and they named it with one word, namely, Lili, as being the subject of the Tincture. At length the imitators of Nature putrefied this matter at its proper period just like the seed in the earth, since before this corruption nothing could be born from it, nor any arcanum break forth from it. Afterwards they drew off the moist spirits from the matter, until at length, by the violence of the fire, the dry were also equally sublimated, so that, in this way, just as the rustic

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sought this One Thing with great labour, and have found that that which preserves the human body from corruption, and prolongs life, conducts itself, with respect to other elements, as it were like the Heavens; from which they understood that the Heavens are a substance above the Four Elements. And just as the Heavens, with respect to the other elements, are held to be the fifth substance (for they are indestructible, stable, and suffer no foreign admixture), so also this One Thing (compared to the forces of our body) is an indestructible essence, drying up all the superfluities of our bodies, and has been philosophically called by the above-mentioned name. It is neither hot and dry like fire, nor cold and moist like water, nor warm and moist like air, nor dry and cold like earth. But it is a skilful, perfect equation of all the Elements, a right commingling of natural forces, a most particular union of spiritual virtues, an indissoluble uniting of body and soul. It is the purest and noblest substance of an indestructible body, which cannot be destroyed nor harmed by the Elements, and is produced by Art. With this, Aristotle prepared an apple, prolonging life by its scent, when he, fifteen days before his death, could neither eat nor drink on account of old age. This spiritual Essence, or One Thing, was revealed from above to Adam, and was greatly desired by the Holy Fathers; this also Hermes and Aristotle call the Truth without Lies, the most sure of all things certain, the Secret of all Secrets. It is the Last and the Highest Thing to be sought under the Heavens, a wondrous closing and finish of philosophical work, by which are discovered the dews of Heaven and the fastnesses of Earth. What the mouth of man cannot utter is all found in this spirit. As Morienus says: "He who has this has all things, and wants no other aid. For in it are all temporal happiness, bodily health, and earthly fortune. It is the spirit of the fifth substance, a Fount of all Joys (beneath the rays of the moon), the Supporter of Heaven and Earth, the Mover of Sea and Wind, the Outpourer of Rain, upholding the strength of all things, an excellent spirit above Heavenly and other spirits, giving Health, Joy, Peace, Love; driving away Hatred and Sorrow, bringing in Joy, expelling all Evil, quickly healing all Diseases, destroying Poverty and misery, leading to all good things, preventing all evil words and thoughts, giving man his heart's desire, bringing to the pious earthly honour and long life, but to the wicked who misuse it, Eternal Punishment." This is the Spirit of Truth, which the world cannot comprehend without the interposition of the Holy Ghost, or without the instruction of those who know it. The same is of a mysterious nature, wondrous strength, boundless power. The Saints, from the beginning of the world, have desired to behold its face. By Avicenna this Spirit is named the Soul of the World. For, as the Soul moves all the limbs of the body, so also does this Spirit move all bodies. And as the Soul is in all the limbs of the Body, so also is this Spirit in all elementary created things. It is sought by many and found by few. It is beheld from afar and found near; for it exists in every thing, in every place, and at all times. It has the powers of all creatures; its action is found in all elements, and the qualities of all things are therein, even in the highest perfection. By virtue of this essence did Adam and the Patriarchs preserve their health and live to an extreme age, some of them also flourishing in great riches. When the philosophers had discovered it, with great diligence and labour, they straightway concealed it under a strange tongue, and in parables, lest the same should become known to the unworthy, and the pearls be cast before swine. For if everyone knew it, all work and industry would cease; man would desire nothing but this one thing, people would live wickedly, and the world be ruined, seeing that they would provoke God by reason of their avarice and superfluity. For eye hath not seen, nor ear heard, nor hath the heart of man understood what Heaven hath naturally incorporated with this Spirit. Therefore have I briefly enumerated some of the qualities of this Spirit, to the Honour of God, that the pious may reverently praise Him in His gifts (which gift of God shall afterwards come to them), and I will herewith shew what powers and virtues it possesses in each thing, also its outward appearance, that it may be more readily recognised. In its first state, it appears as an impure earthly body, full of imperfections. It then has an earthly nature, healing all sickness and wounds in the bowels of man, producing good and consuming proud flesh, expelling all stench, and healing generally, inwardly and outwardly. In its second nature, it

does at the proper time of year, they might come to maturity as one after anc is wont to ascend and to fall away. Lastly, as after the spring comes sum they incorporated those fruits and dry spirits, and brought the Magistei the Tincture to such a point that it came to the harvest, and laid itself for ripening.

CHAPTER IV.

Concerning the Process for the Tincture of the Philosophers, as it is shortened by Paracelsus.

The ancient Spagyrists would not have required such lengthened la and such wearisome repetition if they had learnt and practised their wor my school. They would have obtained their wish just as well, with far expense and labour. But at this time, when Theophrastus Paracelsus arrived as the Monarch of Arcana, the opportunity is at hand for finding those things which were occult to all Spagyrists before me. Wherefc say, Take only the rose-coloured blood from the Lion and the gluten fron Eagle. When you have mixed these, coagulate them according to the

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appears as a watery body, somewhat more beautiful than before, because (although still having its corruptic Virtue is greater. It is much nearer the truth, and more effective in works. In this form it cures cold and hot and is a specific against poisons, which it drives from heart and lungs, healing the same when injured or wounded fying the blood, and, taken three times a day, is of great comfort in all diseases. But in its third nature it appe an aerial body, of an oily nature, almost freed from all imperfections, in which form it does many wondrous work ducing beauty and strength of body, and (a small quantity being taken in the food) preventing melancholy and h of the gall, increasing the quantity of the blood and seed, so that frequent bleeding becomes necessary. It expar blood vessels, cures withered limbs, restores strength to the sight, in growing persons removes what is superfluo makes good defects in the limbs. In its fourth nature it appears in a fiery form (not quite freed from all imperfectio somewhat watery and not dried enough), wherein it has many virtues, making the old young and reviving those point of death. For if to such an one there be given, in wine, a harleycorn's weight of this fire, so that it rea stomach, it goes to his heart, renewing him at once, driving away all previous moisture and poison, and restori natural heat of the liver. Given in small doses to old people, it removes the diseases of age, giving the old young and bodies. Hence it is called the Elixir of Life. In its fifth and last nature, it appears in a glorified and illum form, without defects, shining like gold and silver, wherein it possesses all previous powers and virtues in a high more wondrous degree. Here its natural works are taken for miracles. When applied to the roots of dead tree revive, bringing forth leaves and fruit. A lamp, the oil of which is mingled with this spirit, continues to burn fc without diminution. It converts crystals into the most precious stones of all colours, equal to those from the min does mayn other incredible wonders which may not be revealed to the unworthy. For it heals all dead and living without other medicine. Here Christ is my witness that I lie not, for all heavenly influences are united and cor therein. This essence also reveals all treasures in earth and sea, converts all metallic bodies into gold, and tl nothing like unto it under Heaven. This spirit is the secret, hidden from the beginning, yet granted by God to holy men for the revealing of these riches to His Glory—dwelling in fiery form in the air, and leading earth with to heaven, while from its body there flow whole rivers of living water. This spirit flies through the midst Heavens like a morning mist, leads its burning fire into the water, and has its shining realm in the heavens. although these writings may be regarded as false by the reader, yet to the initiated they are true and possible, wh hidden sense is properly understood. For God is wonderful in His works, and His wisdom is without end. This in its fiery form is called a Sandaraca, in the aerial a Kybrick, in the watery an Azoth, in the earthly Alcohol Aliocosoph. Hence they are deceived by these names who, seeking without instruction, think to find this Spirit in things foreign to our Art. For although this spirit which we seek, on account of its qualities, is called by names, yet the same is not in these bodies and cannot be in them. For a refined spirit cannot appear except in a suitable to its nature. And, by however many names it be called, let no one imagine there be different spirits, fc what one will, there is but one spirit working everywhere and in all things. That is the spirit which, when illumines the Heavens, when setting incorporates the purity of Earth, and when brooding has embraced the W This spirit is named Raphael, the Angel of God, the subtlest and purest, whom the others all obey as their King. spiritual substance is neither heavenly nor hellish, but an airy, pure, and hearty body, midway between the highe lowest, without reason, but fruitful in works, and the most select and beautiful of all other heavenly things. Thi of God is far too deep for understanding, for it is the last, greatest, and highest secret of Nature. It is the Sp God, which in the Beginning filled the earth and brooded over the waters, which the world cannot grasp witho gracious interposition of the Holy Spirit and instruction from those who know it, which also the whole world desi its virtue, and which cannot be prized enough. For it reaches to the planets, raises the clouds, drives away mists

process, and you will have the Tincture of the Philosophers, which an infinite number have sought after and very few have found. Whether you will or not, sophist, this Magistery is in Nature itself, a wonderful thing of God above Nature, and a most precious treasure in this Valley of Sorrows. If you look at it from without it seems a paltry thing to transmute another into something far more noble than it was before. But you must, nevertheless, allow this, and confess that it is a miracle produced by the Spagyrist, who by the art of his preparation corrupts a visible body which is externally vile, from which he excites another most noble and most precious essence. If you, in like manner, have learnt anything from the light of Aristotle, or from us, or from the rules of Serapio, come forth, and bring that knowledge experimentally to light. Preserve now the right of the Schools, as becomes a lover of honour and a doctor. But if you know nothing and can do nothing, why do you despise me as though I were an irrational Helvetian cow, and inveigh against me as a wandering vagabond? Art is a second Nature and a universe of its own, as experience witnesses, and demonstrates against you and your idols. Sometimes, therefore, the Alchemist compounds certain simples, which he

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its light to all things, turns everything into Sun and Moon, bestows all health and abundance of treasure, cleanses the leper, brightens the eyes, banishes sorrow, heals the sick, reveals all hidden treasures, and, generally, cures all diseases. Through this spirit have the philosophers invented the Seven Liberal Arts, and thereby gained their riches. Through the same Moses made the golden vessels in the Ark, and King Solomon did many beautiful works to the honour of God. Therewith Moses built the Tabernacle, Noah the Ark, Solomon the Temple. By this Ezra restored the Law, and Miriam, Moses' sister, was hospitable; Abraham, Isaac, and Jacob, and other righteous men, have had lifelong abundance and riches; and all the saints possessing it have therewith praised God. Therefore is its acquisition very hard, more than that of gold and silver. For it is the best of all things, because, of all things mortal that man can desire in this world, nothing can compare with it, and in it alone is truth. Hence it is called the Stone and Spirit of Truth; in its works is no vanity, its praise cannot be sufficiently expressed. I am unable to speak enough of its virtues, because its good qualities and powers are beyond human thoughts, unutterable by the tongue of man, and in it are found the properties of all things. Yea, there is nothing deeper in Nature. O unfathomable abyss of God's Wisdom, which thus hath united and comprised in the virtue and power of this One Spirit the qualities of all existing bodies! O unspeakable honour and boundless joy granted to mortal man! For the destructible things of Nature are restored by virtue of the said Spirit. O mystery of mysteries, most secret of all secret things, and healing and medicine of all things! Thou last discovery in earthly natures, last best gift to Patriarchs and Sages, greatly desired by the whole world! Oh, what a wondrous and laudable spirit is purity, in which stand all joy, riches, fruitfulness of life, and art of all arts, a power which to its initiates grants all material joys! O desirable knowledge, lovely above all things beneath the circle of the Moon, by which Nature is strengthened, and heart and limbs are renewed, blooming youth is preserved, old age driven away, weakness destroyed, beauty in its perfection preserved, and abundance ensured in all things pleasing to men! O thou spiritual substance, lovely above all things! O thou wondrous power, strengthening all the world! O thou invincible virtue, highest of all that is, although despised by the ignorant, yet held by the wise in great praise, honour, and glory, that—proceeding from humours—wakest the dead, expellest diseases, restorest the voice of the dying! O thou treasure of treasures, mystery of mysteries, called by Avicenna "an unspeakable substance," the purest and most perfect soul of the world, than which there is nothing more costly under Heaven, unfathomable in nature and power, wonderful in virtue and works, having no equal among creatures, possessing the virtues of all bodies under Heaven! For from it flow the water of life, the oil and honey of eternal healing, and thus hath it nourished them with honey and water from the rock. Therefore, saith Morienus: "He who hath it, the same also hath all things." Blessed art Thou, Lord God of our fathers, in that Thou hast given the prophets this knowledge and understanding, that they have hidden these things (lest they should be discovered by the blind, and those drowned in worldly godlessness) by which the wise and the pious have praised Thee! For the discoverers of the mystery of this thing to the unworthy are breakers of the seal of Heavenly Revelation, thereby offending God's Majesty, and bringing upon themselves many misfortunes and the punishments of God. Therefore, I beg all Christians, possessing this knowledge, to communicate the same to nobody, except it be to one living in Godliness, of well-proved virtue, and praising God, Who has given such a treasure to man. For many seek, but few find it. Hence the impure and those living in vice are unworthy of it. Therefore is this Art to be shewn to all God-fearing persons, because it cannot be bought with a price. I testify before God that I lie not, although it appear impossible to fools, that no one has hitherto explored Nature so deeply. The Almighty be praised for having created this Art and for revealing it to God-fearing men. Amen. And thus is fulfilled this precious and excellent work, called the revealing of the occult spirit, in which lie hidden the secrets and mysteries of the world. But this spirit is one genius, and divine, wonderful, and lordly power. For it embraces the whole world, and overcomes the Elements and the fifth Substance. To our Trismegistus Spagyrus, Jesus Christ, be praise and glory immortal. Amen.

afterwards corrupts according to his need, and prepares thence another tl
For thus very often out of many things one is made, which effects more
Nature of herself can do, as in Gastaynum it is perfectly well known that V
is produced from Saturn ; in Carinthia, Luna out of Venus ; and in Hung
Sol out of Luna ; to pass over in silence for the time being the transmuta
of other natural objects, which were well known to the Magi, and
wonderfully than Ovid narrates in his Metamorphoses do they come to
light. That you may rightly understand me, seek your Lion in the East,
your Eagle in the South, for this our work which has been undertaken.
will not find better instruments than Hungary and Istria produce. B
you desire to lead from unity by duality in trinity with equal permutatio
each, then you should direct your journey to the South ; so in Cyprus shall
gain all your desire, concerning which we must not dilate more profusely
we have done at present. There are still many more of these arcana w
exhibit transmutations, though they are known to few. And although t
may by the Lord God be made manifest to anyone, still, the rumour of
Art does not on that account at once break forth, but the Almighty g
therewith the understanding how to conceal these and other like arts eve
the coming of Elias the Artist, at which time there shall be nothing so o
that it shall not be revealed. You also see with your eyes (though there i
need to speak of these things, which may be taken derisively by some) tha
the fire of Sulphur is a great tincture for gems, which, indeed, exalts ther
a loftier degree than Nature by herself could do. But this gradation of m
and gems shall be omitted by me in this place, since I have written sufficie
about it in my Secret of Secrets, in my book on the Vexations of Alchem
and abundantly elsewhere. As I have begun the process of our ances
with the Tincture of the Philosophers, I will now perfectly conclude it.

CHAPTER V.

Concerning the Conclusion of the Process of the Ancients, made by Paracelsus.

Lastly, the ancient Spagyrists having placed Lili in a pelican and drie
fixed it by means of a regulated increase of the fire, continued so long
from blackness, by permutation into all the colours, it became red as bl
and therewith assumed the condition of a salamander. Rightly, indeed,
they proceed with such labour, and in the same way it is right and becor
that everyone should proceed who seeks this pearl. It will be very difficul
me to make this clearer to you unless you shall have learnt in the Scho
the Alchemists to observe the degrees of the fire, and also to change
vessels. For then at length you will see that soon after your Lili shall
become heated in the Philosophic Egg, it becomes, with wonderful appearar
blacker than the crow ; afterwards, in succession of time, whiter than
swan ; and at last, passing through a yellow colour, it turns out more red

any blood. Seek, seek, says the first Spagyrist, and you shall find; knock, and it shall be opened unto you. It would be impious and indecorous to put food in the mouth of a perfidious bird. Let her rather fly to it, even as I, with others before me, have been compelled to do. But follow true Art; for this will lead you to its perfect knowledge. It is not possible that anything should here be set down more fully or more clearly than I have before spoken. Let your Pharisaical schools teach you what they will from their unstable and slippery foundation, which reaches not its end or its aim. When at length you shall have been taught as accurately as possible the Alchemistic Art, nothing in the nature of things shall then at length be so difficult which cannot be made manifest to you by the aid of this Art. Nature, indeed, herself does not bring forth anything into the light which is advanced to its highest perfection, as can be seen in this place from the unity, or the union, of our duality. But a man ought by Spagyric preparations to lead it thither where it was ordained by Nature. Let this have been sufficiently said by me, concerning the process of the ancients and my correction of the Tincture of the Philosophers, so far as relates to its preparation.

Moreover, since now we have that treasure of the Egyptians in our hands, it remains that we turn it to our use: and this is offered to us by the Spagyric Magistery in two ways. According to the former mode it can be applied for the renewing of the body; according to the latter it is to be used for the transmutation of metals. Since, then, I, Theophrastus Paracelsus, have tried each of them in different ways, I am willing to put them forward and to describe them according to the signs indeed of the work, and as in experience and proof they appeared to me better and more perfectly.

CHAPTER VI.

Concerning the Transmutation of Metals by the Perfection of Medicine.

If the Tincture of the Philosophers is to be used for transmutation, a pound of it must be projected on a thousand pounds of melted Sol. Then, at length, will a Medicine have been prepared for transmuting the leprous moisture of the metals. This work is a wonderful one in the light of Nature, namely, that by the Magistery, or the operation of the Spagyrist, a metal, which formerly existed, should perish, and another be produced. This fact has rendered that same Aristotle, with his ill-founded philosophy, fatuous. For truly, when the rustics in Hungary cast iron at the proper season into a certain fountain, commonly called Zifferbrunnen, it is consumed into rust, and when this is liquefied with a blast-fire, it soon exists as pure Venus, and never more returns to iron. Similarly, in the mountain commonly called Kuttenberg, they obtain a lixivium out of marcasites, in which iron is forthwith turned into Venus of a high grade, and more malleable than the other produced by Nature. These things, and more like them, are known to simple men rather

than to sophists, namely, those which turn one appearance of a metal another. And these things, moreover, through the remarkable conte of the ignorant, and partly, too, on account of the just envy of the artific remain almost hidden. But I myself, in Istria, have often brought V to more than twenty-four (al. 38) degrees, so that the colour of Sol c not mount higher, consisting of Antimony or or Quartal, which Venus I in all respects as other kinds.

But though the old artists were very desirous of this arcanum, and soı it with the greatest diligence, nevertheless, very few could bring it by m of a perfect preparation to its end. For the transmutation of an inferior n into a superior one brings with it many difficulties and obstacles, as change of Jove into Luna, or Venus into Sol. Perhaps on account of sins God willed that the Magnalia of Nature should be hidden from many For sometimes, when this Tincture has been prepared by artists, and they not able to reduce their projection to work its effects, it happened tha their carelessness and bad guardianship, this was eaten up by fowls, w feathers thereupon fell off, and, as I myself have seen, grew again. In way transmutation, through its abuse from the carelessness of the art came into Medicine and Alchemy. For when they were unable to use Tincture according to their desire, they converted the same to the renovatic men, as shall be heard more at large in the following chapter.

CHAPTER VII.

Concerning the Renovation of Men.

Some of the first and primitive philosophers of Egypt have live means of this Tincture for a hundred and fifty years. The life of many, has been extended and prolonged to several centuries, as is most cl shewn in different histories, though it seems scarcely credible to any For its power is so remarkable that it extends the life of the body be what is possible to its congenital nature, and keeps it so firmly in that dition that it lives on in safety from all infirmities. And although, inc the body at length comes to old age, nevertheless, it still appears as thou were established in its primal youth.

So, then, the Tincture of the Philosophers is a Universal Medicine, consumes all diseases, by whatsoever name they are called, just lik invisible fire. The dose is very small, but its effect is most powerful. means thereof I have cured the leprosy, venereal disease, dropsy, the fa sickness, colic, scab, and similar afflictions; also lupus, cancer, nol tangere, fistulas, and the whole race of internal diseases, more surely one could believe. Of this fact Germany, France, Italy, Poland, Boh etc., will afford the most ample evidence.

Now, Sophist, look at Theophrastus Paracelsus. How can your Ap Machaon, and Hippocrates stand against me? This is the Catholicum o

Philosophers, by which all these philosophers have attained long life for resisting diseases, and they have attained this end entirely and most effectually, and so, according to their judgment, they named it The Tincture of the Philosophers. For what can there be in the whole range of medicine greater than such purgation of the body, by means whereof all superfluity is radically removed from it and transmuted? For when the seed is once made sound all else is perfected. What avails the ill-founded purgation of the sophists since it removes nothing as it ought? This, therefore, is the most excellent foundation of a true physician, the regeneration of the nature, and the restoration of youth. After this, the new essence itself drives out all that is opposed to it. To effect this regeneration, the powers and virtues of the Tincture of the Philosophers were miraculously discovered, and up to this time have been used in secret and kept concealed by true Spagyrists.

HERE ENDS THE BOOK CONCERNING THE TINCTURE OF THE PHILOSOPHERS.

THE GRADATIONS OF METALS.

PREFACE.

WE now purpose to speak concerning gradations,* and those of such a kind that a metal dissolved or digested in them can be promoted to the degree of Sol and transmuted. Many persons endeavour to transmute the lesser metals into silver, and others, of a mediocre nature, into gold, with some difference, however, in their conjunction, so that in a cineritium, by transmutation of graduation, the lesser metals may be brought to the perfection of the greater ones—a perfection which answers any suitable tests. We will set down, then, in this place, fourteen gradations. Many others may be found, but these we willingly forget, and have collected those only which are established by experience, and are worth writing about. These we arrange with a triple differentiation. Some are strong waters, others are oils, and the rest liquids. These we arrange in a like order, as is clear from our method of treating them. That is to say, we put, first of all, strong waters, secondly oils, and lastly liquids.

The First Gradation.

Take of Vitriol, Alum, and Salt Nitre, two pounds each; of Flos Aeris, Crocus of Mars, and Hæmatitis, a quarter of a pound each; of Cinnabar, a pound and a half; of Antimony,† three-eighths of a pound; of Arsenic, one-eighth of a pound.

Let all be distilled with a very strong fire into strong water, which purify and clarify after the method of such waters, and dissolve therein cemented Luna, or Part with Part, Luna and Venus; then put it in digestion for a month. Afterwards take out the residuum by fulmination, and thus you will

* The term gradation is used by Paracelsus in more than one sense; here it is the process by which one substance is developed into another. Care must be taken to distinguish between this and the grades of metals, etc. Thus, in gold there are said to be twenty-four grades; in silver thirty-two grades of softness; in iron forty-six grades of hardness; in lead eighteen degrees of fluxibility; twelve of malleation in copper; in Mercury eighty-three properties or branches.—*Chirurgia Minor*, Lib. III. Preface.

† From the time of Basil Valentine, Antimony played almost as important a part in the operations of Alchemy as it performed in Medicine. It is variously described by Paracelsus. Sometimes the term is made to include all marcasites, cachimiæ, talcs, ogerta, etc.—*De Morbis Metallicis*, Tract III., c. 3. Again, Antimony is a mucilage, or, that you may understand me the better, firnisium.—*Ibid.*, c. 7. It transmutes Saturn into Venus.—*De Aridura.* It receives its body from Mercury, and is the most gross nature of Mercury, after it has been purged out (that is, expelled from the prime principle). It retains all the powers and virtues of Mercury. Of all products coming forth out of the three first principles, there is none which retains the virtue of Mercury more patently than Antimony. It is nothing but Mercury coagulated through the Spirit of Salt and Sulphur. But, at the same time, understand that it is derived from the gross and rough, not from the subtle nature of the said Mercury.—*De Elemento Aquæ*, Tract V., c. 5.

find it transmuted. Let that which is still in the aquafortis be precipitated and fulminated as above, and thus the remainder of the silver can be obtained. Care should be taken that the aforesaid simples be prepared and separated, first of all, in purgation, because any impurity hinders this work of transmutation very seriously.

The Second Gradation.

In this second gradation it is worth while to note carefully another process, it being one which can be adopted with greater gain and subtlety, as follows: Take of Saltpetre and of Cinnabar each one pound. Let them be pounded together, and the water distilled from them; which water preserve. Do the same with an equal weight of Antimony and Arsenic. Mix together the three waters, and add of Salt Nitre, Alum, and Vitriol each one pound. Distil all again, after the manner of Aquafortis. Afterwards pour this on its *Caput Mortuum*, which has been finely powdered. Again distil it to its ultimate spirit, and clarify it, just as any other aquafortis. In the case of all metals which have been dissolved in it, and have remained in digestion until perfect, its powers of operation are incredibly great. In very truth, there are latent in a composition with these ingredients all the forces of those metals which have in themselves a corporeal matter. For three of such distillations tinge so powerfully, by the force of the water, that scarcely any greater or more powerful means of working with strong waters could be found.

The Third Gradation.

The third gradation, which is reckoned as last among the strong waters, is to be understood and compounded as follows:—Take of Cinnabar, Arsenic, and Antimony, each half a pound, of Saltpetre two pounds, and of Sulphur half a pound. Let these be pounded together, mixed, and distilled to strong water with a very powerful fire. Afterwards take two parts of this water, of Common Alum and Alumen Plumosum each a part and a half, of Vitriol one part, of Verdigris and Crocus of Mars each half a part. Let all these be distilled together into a strong water with a very violent fire. At length, for the whole of this water, take two parts of the *Caput Mortuum*; and of Antimony, Verdigris, Cinnabar, and Sulphur, half a part each. Distil these from their dregs by strongly driving them into a receiver. Afterwards, in this water, when it has been clarified, dissolve half a part with ten parts of flowers of brass and crocus of Mars, and let it be digested therein. You will afterwards find more of the residuum transmuted to Sol than you would deem possible to the Art.

The Fourth Gradation.

Let us now speak about gradations made with oils, which do not dissolve after the mode and form of strong waters, but in digestion, and thus accomplish their perfection. The first gradation of this kind is made with Oil of Antimony, in which is latent a wonderful tincture of redness. Let the

following be the process adopted:—Take of Antimony one pound, and of sublimated Mercury half a pound. Let them both be distilled together over a powerful fire by means of an alembic, and the redness will ascend as thick as blood. This tinges and graduates all Luna into Sol, and brings the latter when pale to the highest degree of permanent colour.

The Fifth Gradation.

The fifth gradation, whereof the oil is reckoned second in order, is made in the manner which follows:—Take of the Oil of the Philosophers one pound, with which mix half a pound respectively of Calcined Alum and of Citrine Colcothar. Distil a second time, and afterwards rectify to purity and a constant colour. Put in Luna, and let it remain in digestion. Reduce what remains, separate it in aquafortis, and, lastly, fulminate by means of Saturn.

The Sixth Gradation.

The sixth gradation, third in order among the oils, is made in the following way:—Take of Live Sulphur* two pounds, and of Flax Oil (linseed oil) four pounds. Let these be formed into a compound, and this be distilled into an oil. To this let there be added the same quantity of Live Sulphur, and let it be treated just as it was for the compound. Let it be digested in horse-dung for a month, or if longer, so much the better. After this let there be added one-eighth of a pound of each of the following: Salt Nitre, Vitriol, Alum, Flos Aeris, Crocus of Mars, and Cinnabar. Distil whatever will ascend. Remove the liquids, keeping only the oils. Put these apart in a glass cucurbite, adding the species as above, and the *Caput Mortuum* in powder. Distil again as before. Afterwards pour it off again from the dregs, let it be putrefied a second time for a month, and further distilled. When the colours are gone or separated, keep the red, and rectify it as required. Lastly, let plates of Luna be digested at the proper time, and at length reduced by a process of fulmination.

The Seventh Gradation.

Gradations which are produced by liquids are found in two different forms, namely, the tenacious and the watery. First let us speak concerning the tenacious. Take one pound of Honey, and in it decoct one-quarter of a pound each of Vitriol and of Alum with an eighth of a pound of lamen. Distil the water from these over a strong fire, and add thereto one-eighth of a pound each of the *Caput Mortuum* from a human cranium, and half a pound of Sulphur. Decoct into the form of a hepar and digest for a month; then distil and rectify with water until pure. Afterwards add one-eighth of a pound each of Sal Ammoniac, Flos Aeris, Crocus of Mars, and Alum; a quarter of a pound of Vitriol, and two ounces each of fixed Antimony and fixed Red Arsenic. Pound

* Live Sulphur is that of which fragments or particles will cohere without it being in a dissolved or fluid state.—*De Præparationibus*, Lib. I., Tract 2.

these together, put into water, and let them stand in heat for ten days. Afterwards let the liquid be separated from the dregs. Purify and project into the mixture metallic plates; then let them remain in moderate digestion until perfect. Lastly, let the matter be burnt, separated, and fulminated.

The Eighth Gradation.

The gradation by the second liquid is as follows:

Take a sufficient quantity of aquafortis. In one part thereof dissolve Sol, in another part Venus, in another part Mars. Mix these solutions together, and afterwards distil the water from them. Pour this again on its dregs, and once more distil and pour as before, until a thick liquid is produced therefrom. To this add five parts of distilled and prepared Honey. Let all be digested for a month, and afterwards separate the phlegma. Keep the liquid, and in it let projected metallic plates be digested for a month. Lastly, let it be coagulated into a mass, and into one distinct body. Let this be subjected to a process of fulmination and quartation. Fulminate a second time, and thus will be found an excellent transmutation by means of liquid.

The Ninth Gradation.

By the third liquid the ninth gradation is made in the following manner:

Take aquafortis, in which dissolve Verdigris, and let both be kept together in horse dung for the space of a month. Now distil the water from the dregs, pour it on again, distil and pour it over several times, until an oil is produced from it. Into that liquid put metallic filings, and in the course of its being digested you will find a transmutation. Although the liquid may be small in quantity, nevertheless it graduates most effectually, and affects the very largest amount of metal in proportion to its own quantity.

The Tenth Gradation.

In the following manner the fourth liquid is to be understood:

Take the best Aquafortis, and in it dissolve as much Steel as possible. Let these remain in digestion for a month, and from them will be formed a compound of one colour. Let this compound also be distilled into a liquid, in which metallic filings must remain in digestion until the liquid is incorporated. Then let both be fulminated together—that is to say, the liquid and the metal—by means of Saturn. Then will be found this transmutation, which must be separated and prepared in the usual way.

The Eleventh Gradation.

The eleventh gradation is made by the first aqueous liquid according to the formula subjoined:

Take four pounds of the most highly purified Saltpetre, and repurge this from its phlegma by combustion. Add two pounds of Common Salt duly prepared. Mix these together, and distil with an alembic six or nine times, until the Salts altogether pass over through the alembic into the receiver

placed ready for the purpose. Then take two pounds of this Water; two ounces each of Flowers of Antimony, Flos Aeris, Flos Martis, and Flower of Sulphur, with two ounces and a half respectively of Sal Ammoniac and of Alum. Mix all these together, and let them remain in digestion for four and twenty days. After this let them be separated in the purest water. Afterwards let Luna and the metals be graduated by digestion, fulminated by Saturn, separated by quartification, and fulminated a second time.

Twelfth Gradation.

By means of the second aqueous liquid the twelfth gradation is produced in the following manner:

Take three pounds of the most highly corrected *Vinum Ardens;* one pound of the Water of Saltpetre; half a pound of the Water of Common Salt; and three quarters of a pound respectively of Vitriol, Alumen Plumosum, and Alumen Aochi. Let these be combined to form a mixture, and distil this six times from the *Caput Mortuum.* In this water let metals be digested, when they will be fixed and transmuted, as we have said above concerning the others.

The Thirteenth Gradation.

By the third aqueous liquid the thirteenth gradation is produced in the following manner:

Take one pound of Isteris of Blood. Distil it thirteen times from its dregs, and place in it two ounces each of Flos Aeris and of Sulphur. Let them be dissolved in horse-dung for a month. Afterwards put in Calx Lunæ, so that the colour and substance may be consumed. Afterwards let them be coagulated and fulminated in Saturn. Know that in this liquid common Mercury, as well as that of metals, is coagulated according to the conditions of Transmutation.

The Fourteenth Gradation.

The fourth liquid in this place is the Water of Mercury, which is made for the fourteenth gradation as follows below:

Take one pound of Mercury sublimated twenty times with Sal Ammoniac, and one ounce respectively of the Flowers of Venus, Mars, Sulphur, and Antimony. Grind and mix all together, and then let them be resolved into a water. This water requires no other labour whatever. Metals projected into it, digested for a short time, and afterwards fulminated, are graduated in a wonderful manner.

Here ends the Book of Gradations.

THE TREASURE OF TREASURES FOR ALCHEMISTS.

By Philippus Theophrastus Bombast, Paracelsus the Great

NATURE begets a mineral in the bowels of the earth. There are two kinds of it, which are found in many districts of Europe. The best which has been offered to me, which also has been found genuine in experimentation, is externally in the figure of the greater world, and is in the eastern part of the sphere of the Sun. The other, in the Southern Star, is now in its first efflorescence. The bowels of the earth thrust this forth through its surface. It is found red in its first coagulation, and in it lie hid all the flowers and colours of the minerals. Much has been written about it by the phllosophers, for it is of a cold and moist nature, and agrees with the element of water.

So far as relates to the knowledge of it and experiment with it, all the philosophers before me, though they have aimed at it with their missiles, have gone very wide of the mark. They believed that Mercury and Sulphur were the mother of all metals, never even dreaming of making mention meanwhile of a third; and yet when the water is separated from it by Spagyric Art the truth is plainly revealed, though it was unknown to Galen or to Avicenna. But if, for the sake of our excellent physicians, we had to describe only the name, the composition, the dissolution, and coagulation, as in the beginning of the world Nature proceeds with all growing things, a whole year would scarcely suffice me, and, in order to explain these things, not even the skins of numerous cows would be adequate.

Now, I assert that in this mineral are found three principles, which are Mercury, Sulphur, and the Mineral Water which has served to naturally coagulate it. Spagyric science is able to extract this last from its proper juice when it is not altogether matured, in the middle of the autumn, just like a pear from a tree. The tree potentially contains the pear. If the Celestial Stars and Nature agree, the tree first of all puts forth shoots in the month of March; then it thrusts out buds, and when these open the flower appears, and so on in due order, until in autumn the pear grows ripe. So is it with the minerals. These are born, in like manner, in the bowels of the earth. Let the Alchemists who are seeking the Treasure of Treasures carefully note this. I will shew them the way, its beginning, its middle, and its end. In the

following treatise I will describe the proper Water, the proper Sulphur, and the proper Balm thereof. By means of these three the resolution and composition are coagulated into one.

Concerning the Sulphur of Cinnabar.

Take mineral Cinnabar and prepare it in the following manner. Cook it with rain water in a stone vessel for three hours. Then purify it carefully, and dissolve it in Aqua Regis, which is composed of equal parts of vitriol, nitre, and sal ammoniac. Another formula is vitriol, saltpetre, alum, and common salt.

Distil this in an alembic. Pour it on again, and separate carefully the pure from the impure thus. Let it putrefy for a month in horse-dung; then separate the elements in the following manner. If it puts forth its sign,* commence the distillation by means of an alembic with a fire of the first degree. The water and the air will ascend; the fire and the earth will remain at the bottom. Afterwards join them again, and gradually treat with the ashes. So the water and the air will again ascend first, and afterwards the element of fire, which expert artists recognise. The earth will remain in the bottom of the vessel. This collect there. It is what many seek after and few find.

This dead earth in the reverberatory you will prepare according to the rules of Art, and afterwards add fire of the first degree for five days and nights. When these have elapsed you must apply the second degree for the same number of days and nights, and proceed according to Art with the material enclosed. At length you will find a volatile salt, like a thin alkali, containing in itself the Astrum of fire and earth.† Mix this with the two elements that have been preserved, the water and the earth. Again place it on the ashes for eight days and eight nights, and you will find that which has been neglected by many Artists. Separate this according to your experience, and according to the rules of the Spagyric Art, and you will have a white earth, from which its colour has been extracted. Join the element of fire and salt to the alkalised earth. Digest in a pelican to extract the essence. Then a new earth will be deposited, which put aside.

Concerning the Red Lion.

Afterwards take the lion in the pelican which also is found [at] first, when you see its tincture, that is to say, the element of fire which stands above the water, the air, and the earth. Separate it from its deposit by trituration.

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* The *Sign* is nothing else than the mark left by an operation. The house constructed by the architect is the sign of his handicraft, whereby his skill and art are determined. Thus the sign is the achievement itself.—*De Colica.*

† The earth also has its Astrum, its course, its order, just as much as the Firmament, but peculiar to the element. So also there is an Astrum in the water, even as in the earth, and in like manner with air and fire. Consequently, the upper Astrum has the Astra of the elements for its medium, and operates through them, by an irresistible attraction. Through this operation of the superior and inferior Astra, all things are fecundated, and led on to their end.—*Explicatio Totius Astronomiæ.* Without the Astra the elements cannot flourish. . . . In the Astrum of the earth all the celestial operations thrive. The Astrum itself is hidden, the bodies are manifest. . . . The motion of the earth is brought about by the Astrum of the earth. . . . There are four Astra in man (corresponding to those of the four elements), for he is the lesser world. —*De Caducis*, Par. II.

Thus you will have the true *aurum potabile.** Sweeten this with the alcohol of wine poured over it, and then distil in an alembic until you perceive no acidity to remain in the Aqua Regia.

This Oil of the Sun, enclosed in a retort hermetically sealed, you must place for elevation that it may be exalted and doubled in its degree. Then put the vessel, still closely shut, in a cool place. Thus it will not be dissolved, but coagulated. Place it again for elevation and coagulation, and repeat this three times. Thus will be produced the Tincture of the Sun, perfect in its degree. Keep this in its own place.

Concerning the Green Lion.

Take the vitriol of Venus,† carefully prepared according to the rules of Spagyric Art, and add thereto the elements of water and air which you have reserved. Resolve, and set to putrefy for a month according to instructions. When the putrefaction is finished, you will behold the sign of the elements. Separate, and you will soon see two colours, namely, white and red. The red is above the white. The red tincture of the vitriol is so powerful that it reddens all white bodies, and whitens all red ones, which is wonderful.

Work upon this tincture by means of a retort, and you will perceive a blackness issue forth. Treat it again by means of the retort, repeating the operation until it comes out whitish. Go on, and do not despair of the work. Rectify until you find the true, clear Green Lion, which you will recognise by its great weight. You will see that it is heavy and large. This is the Tincture, transparent gold. You will see marvellous signs of this Green Lion, such as could be bought by no treasures of the Roman Leo. Happy he who has learnt how to find it and use it for a tincture!

This is the true and genuine Balsam,‡ the Balsam of the Heavenly Stars, suffering no bodies to decay, nor allowing leprosy, gout, or dropsy to take root. It is given in a dose of one grain, if it has been fermented with Sulphur of Gold.

Ah, Charles the German, where is your treasure? Where are your philosophers? Where your doctors? Where are your decocters of woods, who at least purge and relax? Is your heaven reversed? Have your stars wandered out of their course, and are they straying in another orbit, away

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* *Aurum Potabile*, that is, Potable Gold, Oil of Gold, and Quintessence of Gold, are distinguished thus. *Aurum Potabile* is gold rendered potable by intermixture with other substances, and with liquids. Oil of Gold is an oil extracted from the precious metal without the addition of anything. The Quintessence of Gold is the redness of gold extracted therefrom and separated from the body of the metal.—*De Membris Contractis*, Tract II., c. 2.

† If copper be pounded and resolved without a corrosive, you have Vitriol. From this may be prepared the quintessence, oil, and liquor thereof.—*De Morbis Tartareis.* Cuprine Vitriol is Vitriol cooked with Copper.—*De Morbis Vermium*, Par. 6. Chalcanthum is present in Venus, and Venus can by separation be reduced into Chalcanthum.—*Chirurgia Magna*. Pars. III., Lib. IV.

‡ There is, indeed, diffused through all things a Balsam created by God, without which putrefaction would immediately supervene. Thus, in corpses which are anointed with Balsam we see that corruption is arrested, and thus in the physical body we infer that there is a certain natural and congenital Balsam, in the absence of which the living and complete man would not be safe from putrefaction. Nothing removes this Balsam but death. But this kind differs from what is more commonly called Balsam, in that the one is conservative of the living, and the other of the dead.—*Chirurgia Magna*, Pt. II., Tract II., c. 3. The confection of Balsam requires special knowledge of chemistry, and it was first discovered by the Alchemists.—*Ibid.*, Pt. I., Tract II., c. 4.

from the line of limitation, since your eyes are smitten with blindness, as by a carbuncle, and other things making a show of ornament, beauty, and pomp? If your artists only knew that their prince Galen—they call none like him—was sticking in hell, from whence he has sent letters to me, they would make the sign of the cross upon themselves with a fox's tail. In the same way your Avicenna sits in the vestibule of the infernal portal; and I have disputed with him about his *aurum potabile*, his Tincture of the Philosophers, his Quintessence, and Philosophers' Stone, his Mithridatic, his Theriac, and all the rest. O, you hypocrites, who despise the truths taught you by a true physician, who is himself instructed by Nature, and is a son of God himself! Come, then, and listen, impostors who prevail only by the authority of your high positions! After my death, my disciples will burst forth and drag you to the light, and shall expose your dirty drugs, wherewith up to this time you have compassed the death of princes, and the most invincible magnates of the Christian world. Woe for your necks in the day of judgment! I know that the monarchy will be mine. Mine, too, will be the honour and glory. Not that I praise myself: Nature praises me. Of her I am born; her I follow. She knows me, and I know her. The light which is in her I have beheld in her; outside, too, I have proved the same in the figure of the microcosm, and found it in that universe.

But I must proceed with my design in order to satisfy my disciples to the full extent of their wish. I willingly do this for them, if only skilled in the light of Nature and thoroughly practised in astral matters, they finally become adepts in philosophy, which enables them to know the nature of every kind of water.

Take, then, of this liquid of the minerals which I have described, four parts by weight; of the Earth of red Sol two parts; of Sulphur of Sol one part. Put these together into a pelican, congelate, and dissolve them three times. Thus you will have the Tincture of the Alchemists. We have not here described its weight: but this is given in the book on Transmutations.*

So, now, he who has one to a thousand ounces of the *Astrum Solis* shall also tinge his own body of Sol.

If you have the Astrum of Mercury, in the same manner, you will tinge the whole body of common Mercury. If you have the Astrum of Venus you will, in like manner, tinge the whole body of Venus, and change it into the best metal. These facts have all been proved. The same must also be understood as to the Astra of the other planets, as Saturn, Jupiter, Mars, Luna, and the rest. For tinctures are also prepared from these: concerning which we now make no mention in this place, because we have already dwelt at sufficient length upon them in the book on the Nature of Things and in the Archidoxies. So, too, the first entity of metals and terrestrial minerals have been made sufficiently clear for Alchemists to enable them to get the Alchemists' Tincture.

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* It is difficult to identify the treatise to which reference is made here. It does not seem to be the seventh book concerning The Nature of Things, nor the ensuing tract on *Cements*. The general question of natural and artificial weight is discussed in the *Aurora of the Philosophers*. No detached work on Transmutations has come down to us.

This work, the Tincture of the Alchemists, need not be one of nine months ; but quickly, and without any delay, you may go on by the Spaygric Art of the Alchemists, and, in the space of forty days, you can fix this alchemical substance, exalt it, putrefy it, ferment it, coagulate it into a stone, and produce the Alchemical Phœnix.* But it should be noted well that the Sulphur of Cinnabar becomes the Flying Eagle, whose wings fly away without wind, and carry the body of the phœnix to the nest of the parent, where it is nourished by the element of fire, and the young ones dig out its eyes : from whence there emerges a whiteness, divided in its sphere, into a sphere and life out of its own heart, by the balsam of its inward parts, according to the property of the cabalists.

* Know that the Phœnix is the soul of the Iliaster (that is, the first chaos of the matter of all things). . . . It is also the Iliastic soul in man.—*Liber Azoth*, S. V., *Practica Lineæ Vitæ*.

HERE ENDS THE TREASURE OF THE ALCHEMISTS.

CONCERNING THE TRANSMUTATIONS OF METALS AND OF CEMENTS.

By THEOPHRASTUS.

JUST as we have given instructions concerning other transmutations, in the same way also we will fulfil our task with reference to cements. We will make mention of six cements, under which, indeed, all the kinds of cements will be comprised, with which we shall deal singly in serial order according to the recipes and modes of operation. The consideration has to be made general in all respects, so that all the cements may be reduced to one mode of fixation and colouring. These two conditions should not be separated, but they should always persist and remain together in one cineration, coloration, and quartation, just as the properties of true gold are conditioned.

This book on cements does not state how inferior metals are to be transmuted into others, as lead into copper, or iron into copper, etc. But this at least it teaches : how metals may be cemented into the chief metal, gold, that is, Sol. For cements with other recipes cannot perfectly fulfil their operation for transmuting to other metals ; but in these only there is a complete and rapid work of transmutation into Sol, which masters all the other metals, not, indeed, by quartation, but by colouring and tincture.* And notice should be taken what are the bodies which confer their own concordance as though belonging to the same species. For there are some bodies which are receptive, and others which are not so. Some have first of all to be reduced

* From all that has come down to us concerning the labours and investigations of the old philosophers, we see how indefatigable was their search after the best method for preserving and lengthening life. But being themselves devoid of a perfect instruction in the preparation of medicines, they did not hesitate to have recourse to the Alchemists, and thus, by the combined labours of both parties, there at length arose a genuine science of pharmacy, which then, by means of various chemical experiments devoted to medicine, was marvellously propagated and increased. But that which they call the Tincture excelled all. Yet, at the same time, it had fallen into a certain discredit, owing to the gold-makers, who thought it chiefly useful for the transmutation of metals. The philosophers of old having compounded the Tincture, whereby they transmuted the colours of metals and purged away their dross, as might have been expected, next began to think of making use of it for the purpose of Medicine ; and seeing that the flowers of the metals were endowed with greater virtues than the metals themselves, they attempted to utilize these in the interests of the physician. Accordingly, whether from the benignant disposition of Heaven or through the fertility of their minds, those Tinctures were discovered and improved, the efficacy of which is borne witness to by ancient manuscripts, which manuscripts have been suppressed by the crowd of pseudo-medici ; but we do not hesitate to publish them.—*Chirurgia Magna*, Tract III., c. 1.

to their flowers; with others this is not necessary. In like manner, some species colour according to the red Sol, others according to the clayey Sol; some in flux, some in half cement. In like manner, too, diligent attention should be paid to fire, as being that wherein all cements chiefly lie concealed, and wherein they gain their power of operation. Fire contains within itself the whole of Alchemy by its native power to tinge, graduate, and fix, which is, as it were, born with it and impressed upon it.* Every elaborator of cements, too, must attend carefully to the method of the process; for the method is even of greater moment than the prescription or recipe.

So, then, let us proceed to the series of the six cements, as being those whereby all cements are regulated. Among these the first is the Royal Cement. Paying little heed to the method of the ancients, we will follow experience as our guide, and those prescriptions which experience proves to be of no use we will omit. Thus :—

Take Flower of Brass, Antimony, Brick Tiles, Common Salt, of each half a pound. Having pounded all these very small and mixed them together, let them be imbibed with wine and dried. Repeat this process twenty-four times. With this powder let plates of Luna be cemented, in a moderate degree of fire, for four hours. Then at length take Regulus, plated and crude from the former process, and cement it with the same materials and an equal degree of fire, repeating the operation four or five times. Afterwards, having fulminated it again with cinders or ashes, reduce it once more to Luna. The instruments, such as the melting vessels, etc., must be thoroughly luted and stopped up. And although what we here set down is a somewhat lengthy process, yet you must know we make it so for the reason that experience teaches us there is no good in short processes by fire. Indeed, seeing that the continuance and force of the fire supply the chief fixation for the Royal Cement, it would really be far better if the substances spoken of were left for four days in the same kind of cement.

Note, too, that the flowers of brass should be extracted from copper by means of vitriol. For herein is contained some natural fixation when it is taken thus, and that for many reasons.

So, too, the tiles should be taken from a good house; for the roof has the power of fixing the vapours which exist in Luna, which otherwise all fly away and escape.

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* Fire tries everything; what is impure it removes, and it brings about the manifestation of pure substances.—*Paramirum*, Lib. I., c. 1. Fire separates the fixed from the fugitive.—*De Morbis Metallicis*, Lib. II., Tract I., c. 1. Whatsoever pertains to separation belongs to the science of Alchemy. It teaches how to extract, coagulate, and separate every substance in its peculiar vessel.—*De Morbis Tartareis*, c. 16. Whatsoever man does the planets do also, but in an alchemistic sense and process. Accordingly, as the Alchemist seeks saltpetre in nitre, mercury in dung, sulphur in fire, so he also seeks the firmament, which is invisible Vulcan. When he has collected these substances and has united them, detonation follows, of that kind which in heaven is called a thunderbolt, but the Alchemist terms it *Bombard*. For he has the power of producing thunder, as in magic, which is the philosophy of Alchemy. There are foolish people who confound it with (what is now understood as) Nigromancy, yet there is a sense in which it is properly such, and in which Nigromancy is its true name from its earliest origin, being derived from the word blackness, because its initiates walk about as black as charcoal burners. They are all Nigromantics who serve Vulcan.—*De Colica*, s. v. *Paralysis*.

Salt corrects and fixes leprous Luna, cleansing it from its blackness. These four details should exist and be put into practice together; but it is the fire that must be specially observed and noticed. To this cement no other metal is applied; and after it is fulminated it discloses and exhibits gold. Therefore this cement should be considered sufficient for one.

Concerning the Second Cement.

The cement which we wish to put down in the second place is only for Sol, and with regard to it there are four objects which have to be considered. The first is that Sol is sometimes found in this cement defective in the fourth or middle part, because it is not fixed, or not brought to its degree without its deficiencies, as we set down in our treatise on Gradations. Wherefore it has to be cemented in order that it may be able to retain its own volatile body, which otherwise sometimes flies off in the cement, or in the process of incineration, or else in aqua fortis.

The second object is that a good deal of Sol is found which is defective in colour, and it is necessary one should know how to bring it to its perfection of colouring without diminution of its bulk, and so that the colours may remain in the specimens.

The third is that this white, imperfect colour of Sol, having the appearance of Luna, may be cemented, so that it may retain the colour thence acquired in every specimen.

The fourth concerns the weight in which the Sol is sometimes defective, so that it is esteemed as somewhat common. This must be entirely restored to it, when it proves its higher quality by its colour, and a higher grade of Sol exists, for many reasons. For the weight deceives no true artist, as the probe may, also, for many reasons.

By means of cement gold can be perfected in these four particulars so that afterwards no defect shall be found in it, nor any volatile or unfixed condition. Let the preparation of this cement be as follows:—Antimony and Flower of Brass, of each half-a-pound; of coagulated mercury, one-fourth of a pound; let all be mixed together and imbibed with red oil of antimony until the whole is reddened. Afterwards cement with it gold in very thin plates or grains, liquefied by fire for twenty-four hours, without the heat being allowed to decrease, in a fusing vessel closely fastened. When this time has elapsed, take out the Regulus not acted upon by the crude antimony. Let it be liquefied with the addition of copper-green or borax, and afterwards pour it into a form. So you will have the very best and most abundant cement for rendering Sol free from defects and in its highest degree, fixed and permanent in all cements, incinerations, and quartations.

Concerning the Third Cement.

So far we have set down the two fixations or cementations for Luna and Sol, which ought to be adopted when these metals are to be multiplied. But

others, too, have to be cemented, and afterwards placed in a colouring cement. This third cement is adapted for perfecting the other metals and rendering them fit in themselves for the tincture of the other cements. For where a metal has not been prepared and smeared over for this tincture it is not able to take it, or only in a very slight degree, and by a dangerous process.

Quicksilver,* which is comprised under this cement, is not among the number of the metals, but only among metallic materials and malleable bodies. The cement is to be made thus: Antimony, one pound; Saltpetre, one pound; common Salt and Salt of Tartar, half a pound each. Having mixed all these together, put them in a dish, placed layer by layer with plates or filings of the metals. Let them be closely shut up and cemented for twelve hours with a most powerful fire, which had been originally for the first two hours only a gentle one. When this time has elapsed, let all that remains be extracted, that is to say, the loppa (refuse) along with the Regulus. This must be noted, that all cementings of this kind do not exhibit the Regulus, but some of them only the loppas. These should be afterwards treated with Saturn, according to the ordinary method, and Saturn of the same kind burnt in the vessel; then the metal will be found fixed upon it. And here mark the difference of the separation by means of the jar, the cupella, or the cineritium. The metal enters into the cineritium or the cupella, but in the other case it remains on the jar. Metal of this kind, which remains on the surface of the jar, you will cement a second or a third time, as above, so that it may turn out more fixed and remain on the cineritium. When this has been done, it is fixed for receiving the tincture, which is given it by cementation.

With regard to this cement it should be remarked that two or three metals can be blended together in one mixture and one body, which will be better than before. The following is the method. Take filings of Mars, Venus, and Jupiter, or Saturn. Let them stand in a fire of liquefaction for twelve hours. *Addition.* The cement will be more useful, if besides the above there be taken of Antimony and Salt each one pound; filings of Mars, Venus, and Saturn, half a pound each. Treat them as before mentioned.

The Fourth Cement.

The fourth cement is that which is composed of minerals containing within them a perfect metal, and losing it by means of liquefaction. Here it should be noted that metals cannot be better fixed than when they are crude. They vanish altogether in the process of liquefaction. Transmutation of this kind takes place in minerals and metals before liquefaction, so that the metals may be fixed in their own nature, or may be transmuted into some other metal. Therefore we will here comprise two cements under one. The former is

* Quicksilver is generated from the Mercurial prime principle. It is not ductile, and is opposed to ductility. Although of all metals it is chiefly assimilated to Mercury, it differs in this, that it has not received ductility from the Archeus, through the weakness occasioned by its small quantity of salt and sulphur. It can, however, by the Spagyric process of addition, become a ductile metal, as is demonstrated by the philosophy of transmutation, which shews that it is capable of conversion into any metal.—*De Elemento Aquæ*, Tract III., c. 7.

for fixing a metal in a mineral without transmutation; the latter for transmuting the metal of Venus into Sol, or some other metal. It must be remembered that there are far more excellent spirits in minerals than in metals themselves. These are they which assist the gradations and the fixations of minerals when they contain in themselves the tincture and the colours of the matter, which properties have not yet been destroyed by fire, as we fully point out in other books. The following is the prescription for fixing a metal in its own mineral :—

Take of the mineral of Mars, well ground, one pound; to which add two pounds respectively of Antimony and Saltpetre. Cover them closely, lute them, and let them be kindled in a fire of liquefaction for twenty-four hours. Then pour them out. Diminish with some reduction and fulminate with Saturn. Thus you will find metal of the same kind, with good colour of its own, which can be tested in many ways and demonstrated naturally. So with other minerals whereof we make no mention here. For the spirits existing crudely in metals take precedence according to their own colours and essences.

The following is the prescription for the transmutation of minerals :— Crocus of the flowers of Mars and flowers of the Crocus of Venus, each one pound. Vitriol and Alum, each half a pound. Prepared common salt, one pound. Of the mineral, two pounds. Let all be liquefied, deprived of humidity, and cemented for twelve hours. Afterwards let them be liquefied and fulminated in Saturn. When this is done there will be found in the vat a transmutation of the cineritium. You can even, for a transmutation of this kind, add a mixture of metals, taking into account, however, the special aptitude existing in them by means of which one can be more easily transmuted than another.

The Fifth Cement.

This fifth cement concerns only volatile bodies, as of common Mercury, and metals such as Saturn, Venus, Jupiter, Mars, etc. It must be remarked that the corporal Mercuries from the metals differ from the common Mercury in their tincture, since they demand more tincture from the proved metals than that common one does. So, too, it should be understood that both Mercuries, the corporal and the common, should be first of all coagulated in order that they may be able to resist the cement, and to recover their corporal substance, together with their tincture and colouring, as the best metals should.

The coagulation of Mercury* is as follows :—Take Aquafortis, weakened by a solution of Luna to such a degree that it no longer has any corrosive force nor sharpness for dissolving. Into this put either of the Mercuries before spoken of; let the water be warmed a little and afterwards stirred to a thick mass. Then the Mercury will coagulate and harden into the form of

* Mercury is coagulated by Lead, for no metal has greater affinity for Mercury than lead possesses. Coagulation is performed thus : Take ℥ii. of fine lead. Melt it in a vessel of clay; remove it from the fire, and let it cool somewhat. When it approaches congelation, pour into it the same quantity of living Mercury.—*Archidoxis Magicæ*, Lib. VII.

metal. Take it out of the water; wash until clean, and then cement it with the following:—Borax, two drams and a half; Sal ammoniac, two ounces; Crocus of the Flower of Brass, and Flower of the Crocus of Mars, each six ounces; calcined Vitriol and calcined Alum, each two ounces; Hæmatitis and Bolus Armeni, each two ounces. Let them be well pounded, mixed, and imbibed several times in urine. Afterwards let them be placed, layer by layer, in a fusing vessel, with the junctions closed and luted. You will cement by observing the degrees of fire, gently for one hour, and then with a stronger heat for the next hour. Cement for four hours, and keep in a state of fluxion. Then put it in Saturn and fulminate. So you will have the transmutation of Mercury as we said above.

But when it has been cemented otherwise than in the way now described, it can still be transmuted with the following cement:—Cinnabar and Borax, of each half a dram. Let these be liquefied into one body, which sublimate after the method of Cinnabar, so that it shall still be one body. Then add the following: Calcined Common Salt, Flowers of Brass, Crocus of Mars, Bolus, of each two ounces; of the above-mentioned body, one dram. Let them be placed layer by layer in a crucible; afterwards let them be slowly heated for the first six hours, and for the next six treated with a greater fire, and at last for twelve hours subjected to the most violent heat. This having been done, again sublimate as above by the aforesaid process, and on the fourth or fifth cement you will find the cinnabar fixed, which reduce and fulminate by Saturn. You will then have its transmutation as aforesaid. In this way you can proceed to transmutation with other volatile bodies.

The Sixth Cement.

It now remains to be said in what way Part with Part comes to be cemented so that it receives more of the tincture, and receives it sooner than by other like operations of the Artists, because Sol is fixed and graduated by the cement. It should be understood, too, that these should be cemented and both raised to the highest degree, prepared, subtilised, and re-purified; afterwards liquefied at the same time, and made into plates in equal weight, then stratified in a crucible closely shut, with the following powder: Cinnabar, Flower of Brass, Bloodstone, half a dram each; Sal Ammoniac, Calamine, Sulphur, Common Salt, Vitriol, Alum, and Crocus of Mars, two ounces each.

After having been well ground and mixed into one body, let them be exposed to a gentle fire, and afterwards imbibed with urine, and at length use it for the aforesaid stratification. Let them be placed at the fire six hours to liquefy: then renew and liquefy for another six hours. Do the same a third time for twelve hours; a fourth time for twenty-four hours. Lastly, liquefy by a fulmen of Saturn. In this way you have transmutation. If, however, you have selected other metals, such as Venus or Mars, add more of the powder and more heat, that they may be able to mix and be brought to a state of transmutation.

Conclusion.

In these few words we would conclude our book on cements, believing that we have treated these matters with sufficent clearness. Although many other prescriptions for similar cementations are in vogue, we exclude them from our own enumeration, putting down in this place only those which have been by experiment proved more useful.

Here ends the Transmutations of Metals and Cements.

THE AURORA OF THE PHILOSOPHERS.

By THEOPHRASTUS PARACELSUS.

WHICH HE OTHERWISE CALLS HIS MONARCHIA.*

CHAPTER I.

Concerning the Origin of the Philosophers' Stone.

ADAM was the first inventor of arts, because he had knowledge of all things as well after the Fall as before.† Thence he predicted the world's destruction by water. From this cause, too, it came about that his successors erected two tables of stone, on which they engraved all natural arts in hieroglyphical characters, in order that their posterity might also become acquainted with this prediction, that so it might be heeded, and provision made in the time of danger. Subsequently, Noah found one of these tables under Mount Araroth, after the Deluge. In this table were described the courses of the upper firmament and of the lower globe, and also of the planets. At length this universal knowledge was divided into several parts, and lessened in its vigour and power. By means of this separation, one man became an astronomer, another a magician, another a cabalist, and a fourth an alchemist. Abraham, that Vulcanic Tubal-cain, a consummate astrologer and arithmetician, carried the Art out of the land of Canaan into Egypt, whereupon the Egyptians rose to so great a height and dignity that this wisdom was derived from them by other nations. The

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* The work under this title is cited occasionally in other writings of Paracelsus, but is not included in the great folio published at Geneva in 1688. It was first issued at Basle in 1575, and was accompanied with copious annotations in Latin by the editor, Gerard Dorne. This personage was a very persevering collector of the literary remains of Paracelsus, but is not altogether free from the suspicion of having elaborated his original. The Aurora is by some regarded as an instance in point; though no doubt in the main it is a genuine work of the Sage of Hohenheim, yet in some respects it does seem to approximate somewhat closely to previous schools of Alchemy, which can scarcely be regarded as representing the actual standpoint of Paracelsus.

† He who created man the same also created science. What has man in any place without labour? When the mandate went forth: Thou shalt live by the sweat of thy brow, there was, as it were, a new creation. When God uttered His fiat the world was made. Art, however, was not then made, nor was the light of Nature. But when Adam was expelled from Paradise, God created for him the light of Nature when He bade him live by the work of his hands. In like manner, He created for Eve her special light when He said to her: In sorrow shalt thou bring forth children. Thus, and there, were these beings made human and earthy that were before like angelicals. . . . Thus, by the word were creatures made, and by this same word was also made the light which was necessary to man. . . . Hence the interior man followed from the second creation, after the expulsion from Paradise. . . . Before the Fall, that cognition which was requisite to man had not begun to develop in him. He received it from the angel when he was cast out of Paradise. . . . Man was made complete in the order of the body, but not in the order of the arts.—*De Caducis*, Par. 111.

patriarch Jacob painted, as it were, the sheep with various colours; and this was done by magic: for in the theology of the Chaldeans, Hebrews, Persians, and Egpytians, they held these arts to be the highest philosophy, to be learnt by their chief nobles and priests. So it was in the time of Moses, when both the priests and also the physicians were chosen from among the Magi—the priests for the judgment of what related to health, especially in the knowledge of leprosy. Moses, likewise, was instructed in the Egyptian schools, at the cost and care of Pharaoh's daughter, so that he excelled in all the wisdom and learning of that people. Thus, too, was it with Daniel, who in his youthful days imbibed the learning of the Chaldeans, so that he became a cabalist. Witness his divine predictions and his exposition of those words, "Mene, Mene, Tecelphares." These words can be understood by the prophetic and cabalistic Art. This cabalistic Art was perfectly familiar to, and in constant use by, Moses and the Prophets. The Prophet Elias foretold many things by his cabalistic numbers. So did the Wise Men of old, by this natural and mystical Art, learn to know God rightly. They abode in His laws, and walked in His statutes with great firmness. It is also evident in the Book of Samuel, that the Berelists did not follow the devil's part, but became, by Divine permission, partakers of visions and veritable apparitions, whereof we shall treat more at large in the Book of Supercelestial Things.* This gift is granted by the Lord God to those priests who walk in the Divine precepts. It was a custom among the Persians never to admit any one as king unless he were a Wise Man, pre-eminent in reality as well as in name. This is clear from the customary name of their kings; for they were called Wise Men. Such were those Wise Men and Persian Magi who came from the East to seek out the Lord Jesus, and are called natural priests. The Egyptians, also, having obtained this magic and philosophy from the Chaldeans and Persians, desired that their priests should learn the same wisdom; and they became so fruitful and successful therein that all the neighbouring countries admired them. For this reason Hermes was so truly named Trismegistus, because he was a king, a priest, a prophet, a magician, and a sophist of natural things. Such another was Zoroaster.

CHAPTER II.

Wherein is Declared that the Greeks drew a large part of their Learning from the Egyptians; and how it came from them to us.

When a son of Noah possessed the third part of the world after the Flood, this Art broke into Chaldæa and Persia, and thence spread into Egypt. The Art having been found out by the superstitious and idolatrous Greeks, some of them who were wiser than the rest betook themselves to the Chaldeans and

* No work precisely corresponding to this title is extant among the writings of Paracelsus. The subjects to which reference is made are discussed in the *Philosophia Sagax*.

Egyptians, so that they might draw the same wisdom from their schools. Since, however, the theological study of the law of Moses did not satisfy them, they trusted to their own peculiar genius, and fell away from the right foundation of those natural secrets and arts. This is evident from their fabulous conceptions, and from their errors respecting the doctrine of Moses. It was the custom of the Egyptians to put forward the traditions of that surpassing wisdom only in enigmatical figures and abstruse histories and terms. This was afterwards followed by Homer with marvellous poetical skill; and Pythagoras was also acquainted with it, seeing that he comprised in his writings many things out of the law of Moses and the Old Testament. In like manner, Hippocrates, Thales of Miletus, Anaxagoras, Democritus, and others, did not scruple to fix their minds on the same subject. And yet none of them were practised in the true Astrology, Geometry, Arithmetic, or Medicine, because their pride prevented this, since they would not admit disciples belonging to other nations than their own. Even when they had got some insight from the Chaldeans and Egyptians, they became more arrogant still than they were before by Nature, and without any diffidence propounded the subject substantially indeed, but mixed with subtle fictions or falsehoods; and then they attempted to elaborate a certain kind of philosophy which descended from them to the Latins. These in their turn, being educated herewith, adorned it with their own doctrines, and by these the philosophy was spread over Europe. Many academies were founded for the propagation of their dogmas and rules, so that the young might be instructed; and this system flourishes with the Germans, and other nations, right down to the present day.

CHAPTER III.

What was Taught in the Schools of the Egyptians.

The Chaldeans, Persians, and Egyptians had all of them the same knowledge of the secrets of Nature, and also the same religion. It was only the names that differed. The Chaldeans and Persians called their doctrine Sophia and Magic*; and the Egyptians, because of the sacrifice, called their wisdom priestcraft. The magic of the Persians, and the theology of the Egyptians, were both of them taught in the schools of old. Though there were many schools and learned men in Arabia, Africa, and Greece, such as Albumazar, Abenzagel, Geber, Rhasis, and Avicenna among the Arabians; and among the Greeks, Machaon, Podalirius, Pythagoras, Anaxagoras, Democritus, Plato, Aristotle, and Rhodianus; still there were different opinions amongst them as to the wisdom of the Egyptian on points wherein they themselves differed, and whereupon they disagreed with it. For this reason Pythagoras could not be

* Before all things it is necessary to have a right understanding of the nature of Celestial Magic. It originates from divine virtue. There is that magic which Moses practised, and there is the maleficent magic of the sorcerers. There are, then, different kinds of Magi. So also there is what is called the Magic of Nature; there is the Celestial Magus; there is the Magus of Faith, that is, one whose faith makes him whole. There is, lastly, the Magus of Perdition.—*Philosophia Sagax*, Lib. II., c. 6.

called a wise man, because the Egyptian priestcraft and wisdom were not perpectly taught, although he received therefrom many mysteries and arcana; and that Anaxagoras had received a great many as well, is clear from his discussions on the subject of Sol and its Stone, which he left behind him after his death. Yet he differed in many respects from the Egyptians. Even they would not be called wise men or Magi; but, following Pythagoras, they assumed the name of philosophy: yet they gathered no more than a few gleams like shadows from the magic of the Persians and the Egyptians. But Moses, Abraham, Solomon, Adam, and the wise men that came from the East to Christ, were true Magi, divine sophists and cabalists. Of this art and wisdom the Greeks knew very little or nothing at all; and therefore we shall leave this philosophical wisdom of the Greeks as being a mere speculation, utterly distinct and separate from other true arts and sciences.

CHAPTER IV.

What Magi the Chaldeans, Persians, and Egyptians were.

Many persons have endeavoured to investigate and make use of the secret magic of these wise men; but it has not yet been accomplished. Many even of our own age exalt Trithemius, others Bacon and Agrippa, for magic and the cabala*—two things apparently quite distinct—not knowing why they do so. Magic, indeed, is an art and faculty whereby the elementary bodies, their fruits, properties, virtues, and hidden operations are comprehended. But the cabala, by a subtle understanding of the Scriptures, seems to trace out the way to God for men, to shew them how they may act with Him, and prophesy from Him; for the cabala is full of divine mysteries, even as Magic is full of natural secrets. It teaches of and foretells from the nature of things to come as well as of things present, since its operation consists in knowing the inner constitution of all creatures, of celestial as well as terrestrial bodies: what is latent within them; what are their occult virtues; for what they were originally designed, and with what properties they are endowed. These and the like subjects are the bonds wherewith things celestial are bound up with things of the earth, as may sometimes be seen in their operation even with the bodily eyes. Such a conjunction of celestial influences, whereby the heavenly virtues acted upon inferior bodies, was formerly called by the Magi a Gamahea,†

* Learn, therefore, Astronomic Magic, which otherwise I call cahalistic.—*De Pestilitate*, Tract I. This art, formerly called cabalistic, was in the beginning named caballa, and afterwards caballia. It is a species of magic. It was also, but falsely, called Gabanala, by one whose knowledge of the subject was profound. It was of an unknown Ethnic origin, and it passed subsequently to the Chaldæans and Hebrews, by both of whom it was corrupted.—*Philosophia Sagax*, Lib. I., s. v. *Probatio in Scientiam Nectromantricam.*

† The object which received the influence and exhibited the sign thereof appears to have been termed Gamahen, Gamahey, etc. But the name was chiefly given to certain stones on which various and wonderful images and figures of men and animals have been found naturally depicted, being no work of man, but the result of the providence and counsel of God.—*De Imaginibus*, c. 7 and c. 13. It is possible, magically, for a man to project his influence into these stones and some other substances.—*Ibid.*, c. 13. But they also have their own inherent virtue, which is indicated by the shape and the special nature of the impression.—*Ibid.*, c. 7. There was also an artificial Gamaheus invented and prepared by the Magi, and this seems to have been more powerful.—*De Carduo Angelico.*

or the marriage of the celestial powers and properties with elementary bodies. Hence ensued the excellent commixtures of all bodies, celestial and terrestrial, namely, of the sun and planets, likewise vegetables, minerals, and animals.

The devil attempted with his whole force and endeavour to darken this light; nor was he wholly frustrated in his hopes, for he deprived all Greece of it, and, in place thereof, introduced among that people human speculations and simple blasphemies against God and against His Son. Magic, it is true, had its origin in the Divine Ternary and arose from the Trinity of God. For God marked all His creatures with this Ternary and engraved its hieroglyph on them with His own finger. Nothing in the nature of things can be assigned or produced that lacks this magistery of the Divine Ternary, or that does not even ocularly prove it. The creature teaches us to understand and see the Creator Himself, as St. Paul testifies to the Romans. This covenant of the Divine Ternary, diffused throughout the whole substance of things, is indissoluble. By this, also, we have the secrets of all Nature from the four elements. For the Ternary, with the magical Quaternary, produces a perfect Septenary, endowed with many arcana and demonstrated by things which are known. When the Quaternary rests in the Ternary, then arises the Light of the World on the horizon of eternity, and by the assistance of God gives us the whole bond. Here also it refers to the virtues and operations of all creatures, and to their use, since they are stamped and marked with their arcana, signs, characters, and figures, so that there is left in them scarcely the smallest occult point which is not made clear on examination. Then when the Quaternary and the Ternary mount to the Denary is accomplished their retrogression or reduction to unity. Herein is comprised all the occult wisdom of things which God has made plainly manifest to men, both by His word and by the creatures of His hands, so that they may have a true knowledge of them. This shall be made more clear in another place.

CHAPTER V.

Concerning the Chief and Supreme Essence of Things.

The Magi in their wisdom asserted that all creatures might be brought to one unified substance, which substance they affirm may, by purifications and purgations, attain to so high a degree of subtlety, such divine nature and occult property, as to work wonderful results. For they considered that by returning to the earth, and by a supreme magical separation, a certain perfect substance would come forth, which is at length, by many industrious and prolonged preparations, exalted and raised up above the range of vegetable substances into mineral, above mineral into metallic, and above perfect metallic substances into a perpetual and divine Quintessence,* including in itself the

* Man was regarded by Paracelsus as himself in a special manner the true Quintessence. After God had created all the elements, stars, and every other created thing, and had disposed them according to His will, He proceeded, lastly, to the forming of man. He extracted the essence out of the four elements into one mass; He extracted also the

essence of all celestial and terrestrial creatures. The Arabs and Greeks, by the occult characters and hieroglyphic descriptions of the Persians and the Egyptians, attained to secret and abstruse mysteries. When these were obtained and partially understood they saw with their own eyes, in the course of experimenting, many wonderful and strange effects. But since the supercelestial operations lay more deeply hidden than their capacity could penetrate, they did not call this a supercelestial arcanum according to the institution of the Magi, but the arcanum of the Philosophers' Stone according to the counsel and judgment of Pythagoras. Whoever obtained this Stone overshadowed it with various enigmatical figures, deceptive resemblances, comparisons, and fictitious titles, so that its matter might remain occult. Very little or no knowledge of it therefore can be had from them.

CHAPTER VI.

Concerning the Different Errors as to its Discovery and Knowledge.

The philosophers have prefixed most occult names to this matter of the Stone, grounded on mere similitudes. Arnold, observing this, says in his "Rosary" that the greatest difficulty is to find out the material of this Stone; for they have called it vegetable, animal, and mineral, but not according to the literal sense, which is well known to such wise men as have had experience of divine secrets and the miracles of this same Stone. For example, Raymond Lully's "Lunaria" may be cited. This gives flowers of admirable virtues familiar to the philosophers themselves; but it was not the intention of those philosophers that you should think they meant thereby any projection upon metals, or that any such preparations should be made; but the abstruse mind of the philosophers had another intention. In like manner, they called their matter by the name of Martagon, to which they applied an occult alchemical operation; when, notwithstanding that name, it denotes nothing more than a hidden similitude. Moreover, no small error has arisen in the liquid of vegetables, with which a good many have sought to coagulate Mercury,* and afterwards to convert it with fixatory waters into Luna, since they supposed that he who in this way could coagulate it without the aid of metals would succeed in becoming the chief master. Now, although the liquids of some vegetables do effect this, yet the result is due merely to the resin, fat, and earthy sulphur with which they abound. This attracts to itself the moisture

essence of wisdom, art, and reason out of the stars, and this twofold essence He congested into one mass: which mass Scripture calls the slime of the earth. From that mass two bodies were made—the sidereal and the elementary. These, according to the light of Nature, are called the *quintum esse*. The mass was extracted, and therein the firmament and the elements were condensed. What was extracted from the four after this manner constituted a fifth. The Quintessence is the nucleus and the place of the essences and properties of all things in the universal world. All nature came into the hand of God – all potency, all property, all essence of the superior and inferior globe. All these had God joined in His hand, and from these He formed man according to His image.—*Philosophia Sagax*, Lib. I., c. 2.

* All created things proceed from the coagulated, and after coagulation must go on to resolution. From resolution proceed all procreated things.—*De Tartaro* (fragment). All bodies of minerals are coagulated by salt.—*De Naturalibus Aquis*, Lib. III., Tract 2.

of the Mercury which rises with the substance in the process of coagulation, but without any advantage resulting. I am well assured that no thick and external Sulphur in vegetables is adapted for a perfect projection in Alchemy, as some have found out to their cost. Certain persons have, it is true, coagulated Mercury with the white and milky juice of tittinal, on account of the intense heat which exists therein; and they have called that liquid "Lac Virginis"; yet this is a false basis. The same may be asserted concerning the juice of celandine, although it colours just as though it were endowed with gold. Hence people conceived a vain idea. At a certain fixed time they rooted up this vegetable, from which they sought for a soul or quintessence, wherefrom they might make a coagulating and transmuting tincture. But hence arose nothing save a foolish error.

CHAPTER VII.

Concerning the Errors of those who seek the Stone in Vegetables.

Some alchemists have pressed a juice out of celandine, boiled it to thickness, and put it in the sun, so that it might coagulate into a hard mass, which, being afterwards pounded into a fine black powder, should turn Mercury by projection into Sol. This they also found to be in vain. Others mixed Sal Ammoniac with this powder; others the Colcothar of Vitriol, supposing that they would thus arrive at their desired result. They brought it by their solutions into a yellow water, so that the Sal Ammoniac allowed an entrance of the tincture into the substance of the Mercury. Yet again nothing was accomplished. There are some again who, instead of the above-mentioned substances, take the juices of persicaria, bufonaria, dracunculus, the leaves of willow, tithymal, cataputia, flammula, and the like, and shut them up in a glass vessel with Mercury for some days, keeping them in ashes. Thus it comes about that the Mercury is turned into ashes, but deceptively and without any result. These people were misled by the vain rumours of the vulgar, who give it out that he who is able to coagulate Mercury without metals has the entire Magistery, as we have said before. Many, too, have extracted salts, oils, and sulphurs artificially out of vegetables, but quite in vain. Out of such salts, oils, and sulphurs no coagulation of Mercury, or perfect projection, or tincture, can be made. But when the philosophers compare their matter to a certain golden tree of seven boughs, they mean that such matter includes all the seven metals in its sperm, and that in it these lie hidden. On this account they called their matter vegetable, because, as in the case of natural trees, they also in their time produce various flowers. So, too, the matter of the Stone shews most beautiful colours in the production of its flowers. The comparison, also, is apt, because a certain matter rises out of the philosophical earth, as if it were a thicket of branches and sprouts, like a sponge growing on the earth. They say, therefore, that the fruit of their tree tends towards heaven. So, then, they put forth that the whole thing

hinged upon natural vegetables, though not as to its matter, because their stone contains within itself a body, soul, and spirit, as vegetables do.

CHAPTER VIII.

Concerning those who have sought the Stone in Animals.

They have also, by a name based only on resemblances, called this matter Lac Virginis, and the Blessed Blood of Rosy Colour, which, nevertheless, suits only the prophets and sons of God. Hence the sophists* gathered that this philosophical matter was in the blood of animals or of man. Sometimes, too, because they are nourished by vegetables, others have sought it in hairs, in salt of urine, in rebis ; others in hens' eggs, in milk, and in the calx of egg shells, with all of which they thought they would be able to fix Mercury. Some have extracted salt out of fœtid urine, supposing that to be the matter of the Stone. Some persons, again, have considered the little stones found in rebis to be the matter. Others have macerated the membranes of eggs in a sharp lixivium, with which they also mixed calcined egg shells as white as snow. To these they have attributed the arcanum of fixation for the transmutation of Mercury. Others, comparing the white of the egg to silver and the yolk to gold, have chosen it for their matter, mixing with it common salt, sal ammoniac, and burnt tartar. These they shut up in a glass vessel, and purified in a *Balneum Maris* until the white matter became as red as blood. This, again, they distilled into a most offensive liquid, utterly useless for the purpose they had in view. Others have purified the white and yolk of eggs, from which has been generated a basilisk. This they burnt to a deep red powder, and sought to tinge with it, as they learnt from the treatise of Cardinal Gilbert. Many, again, have macerated the galls of oxen, mixed with common salt, and distilled this into a liquid, with which they moistened the cementary powders, supposing that, by means of this Magistery, they would tinge their metals. This they called by the name of "a part with a part," and thence came—just nothing. Others have attempted to transmute tutia by the addition of dragon's blood and other substances, and also to change copper and electrum into gold. Others, according to the Venetian Art, as they call it, take twenty lizard-like animals, more or less, shut them up in a vessel, and make them mad with hunger, so that they may devour one another until only one of them survives. This one is then fed with filings of copper or of electrum. They suppose that this animal, simply by the digestion of his stomach, will bring about the desired transmutation. Finally, they burn this animal into a red powder, which they thought must be gold; but they were deceived. Others, again, having burned the fishes called truitas (? trouts), have sometimes, upon melting them, found some gold in them ; but there is no other reason for it than this: Those fish sometimes in rivers

* So acute is the potency of calcined blood, that if it be poured slowly on iron it produces in the first place a whiteness thereon, and then generates rust.—*Scholia in Libros de Tartaro.* In Lib. II., Tract II.

and streams meet with certain small scales and sparks of gold, which they eat. It is seldom, however, that such deceivers are found, and then chiefly in the courts of princes. The matter of the philosophers is not to be sought in animals: this I announce to all. Still, it is evident that the philosophers called their Stone animal, because in their final operations the virtue of this most excellent fiery mystery caused an obscure liquid to exude drop by drop from the matter in their vessels. Hence they predicted that, in the last times, there should come a most pure man upon the earth, by whom the redemption of the world should be brought about; and that this man should send forth bloody drops of a red colour, by means of which he should redeem the world from sin. In the same way, after its own kind, the blood of their Stone freed the leprous metals from their infirmities and contagion. On these grounds, therefore, they supposed they were justified in saying that their Stone was animal. Concerning this mystery Mercurius speaks as follows to King Calid :—

"This mystery it is permitted only to the prophets of God to know. Hence it comes to pass that this Stone is called animal, because in its blood a soul lies hid. It is likewise composed of body, spirit, and soul. For the same reason they called it their microcosm, because it has the likeness of all things in the world, and thence they termed it animal, as Plato named the great world an animal."

CHAPTER IX.

Concerning those who have sought the Stone in Minerals.

Hereto are added the many ignorant men who suppose the stone to be three-fold, and to be hidden in a triple genus, namely, vegetable, animal, and mineral. Hence it is that they have sought for it in minerals. Now, this is far from the opinion of the philosophers. They affirm that their stone is uniformly vegetable, animal, and mineral. Now, here note that Nature has distributed its mineral sperm into various kinds, as, for instance, into sulphurs, salts, boraxes, nitres, ammoniacs, alums, arsenics, atraments, vitriols, tutias, hæmatites, orpiments, realgars, magnesias, cinnabar, antimony, talc, cachymia, marcasites, etc. In all these Nature has not yet attained to our matter; although in some of the species named it displays itself in a wonderful aspect for the transmutation of imperfect metals that are to be brought to perfection. Truly, long experience and practice with fire shew many and various permutations in the matter of minerals, not only from one colour to another, but from one essence to another, and from imperfection to perfection. And, although Nature has, by means of prepared minerals, reached some perfection, yet philosophers will not have it that the matter of the philosophic stone proceeds out of any of the minerals, although they say that their stone is universal. Hence, then, the sophists take occasion to persecute Mercury himself with various torments, as with sublimations, coagulations, mercurial waters, aquafortis, and the like. All these erroneous ways should be avoided,

together with other sophistical preparations of minerals, and the purgations and fixations of spirits and metals. Wherefore all the preparations of the stone, as of Geber, Albertus Magnus, and the rest, are sophistical. Their purgations, cementations, sublimations distillations, rectifications, circulations, putrefactions, conjunctions, solutions, ascensions, coagulations, calcinations, and incinerations are utterly profitless, both in the tripod, in the athanor, in the reverberatory furnace, in the melting furnace, the accidioneum, in dung, ashes, sand, or what not; and also in the cucurbite, the pelican, retort, phial, fixatory, and the rest. The same opinion must be passed on the sublimation of Mercury by mineral spirits, for the white and the red, as by vitriol, saltpetre, alum, crocuses, etc., concerning all which subjects that sophist, John de Rupescissa, romances in his treatise on the White and Red Philosophic Stone. Taken altogether, these are merely deceitful dreams. Avoid also the particular sophistry of Geber; for example, his sevenfold sublimations or mortifications, and also the revivifications of Mercury, with his preparations of salts of urine, or salts made by a sepulchre, all which things are untrustworthy. Some others have endeavoured to fix Mercury with the sulphurs of minerals and metals, but have been greatly deceived. It is true I have seen Mercury by this Art, and by such fixations, brought into a metallic body resembling and counterfeiting good silver in all respects; but when brought to the test it has shewn itself to be false.

CHAPTER X.

Concerning those who have sought the Stone and also Particulars in Minerals.

Some sophists have tried to squeeze out a fixed oil from Mercury seven times sublimed and as often dissolved by means of aquafortis. In this way they attempt to bring imperfect metals to perfection: but they have been obliged to relinquish their vain endeavour. Some have purged vitriol seven times by calcination, solution, and coagulation, with the addition of two parts of sal ammoniac, and by sublimation, so that it might be resolved into a white water, to which they have added a third part of quicksilver, that it might be coagulated by water. Then afterwards they have sublimated the Mercury several times from the vitriol and sal ammoniac, so that it became a stone. This stone they affirmed, being conceived of the vitriol, to be the Red Sulphur of the philosophers, with which they have, by means of solutions and coagulations, made some progress in attaining the stone; but in projection it has all come to nothing. Others have coagulated Mercury by water of alum into a hard mass like alum itself; and this they have fruitlessly fixed with fixatory waters. The sophists propose to themselves very many ways of fixing Mercury, but to no purpose, for therein nothing perfect or constant can be had. It is therefore in vain to add minerals thereto by sophistical processes, since by all of them he is stirred up to greater malice, is rendered

more lively, and rather brought to greater impurity than to any kind of perfection. So, then, the philosophers' matter is not to be sought from thence. Mercury is somewhat imperfect; and to bring it to perfection will be very difficult, nay, impossible for any sophist. There is nothing therein that can be stirred up or compelled to perfection. Some have taken arsenic several times sublimated, and frequently dissolved with oil of tartar and coagulated. This they have pretended to fix, and by it to turn copper into silver. This, however, is merely a sophistical whitening, for arsenic cannot be fixed* unless the operator be an Artist, and knows well its tingeing spirit. Truly in this respect all the philosophers have slept, vainly attempting to accomplish anything thereby. Whoever, therefore, is ignorant as to this spirit, cannot have any hopes of fixing it, or of giving it that power which would make it capable of the virtue of transmutation. So, then, I give notice to all that the whitening of which I have just now spoken is grounded on a false basis, and that by it the copper is deceitfully whitened, but not changed.

Now the sophists have mixed this counterfeit Venus with twice its weight of Luna, and sold it to the goldsmiths and mint-masters, until at last they have transmuted themselves into false coiners—not only those who sold, but those who bought it. Some sophists instead of white arsenic take red, and this has turned out false art; because, however it is prepared, it proves to be nothing but whiteness.

Some, again, have gone further and dealt with common sulphur, which, being so yellow, they have boiled in vinegar, lixivium, or sharpest wines, for a day and a night, until it became white. Then afterwards they sublimated it from common salt and the calx of eggs, repeating the process several times; yet, still, though white, it has been always combustible. Nevertheless, with this they have endeavoured to fix Mercury and to turn it into gold; but in vain. From this, however, comes the most excellent and beautiful cinnabar that I have ever seen. This they propose to fix with the oil of sulphur by cementation and fixation. It does, indeed, give something of an appearance, but still falls short of the desired object. Others have reduced common sulphur to the form of a hepar, boiling it in vinegar with the addition of linseed oil, or laterine oil, or olive oil. They then pour it into a marble mortar, and make it into the form of a hepar, which they have first distilled into a citrine oil with a gentle fire. But they have found to their loss that they could not do anything in the way of transmuting Luna to Sol as they supposed they would be able. As there is an infinite number of metals, so also there is much variety in the preparation of them. I shall not make further mention of these in this place, because each

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* One recipe for the fixation of arsenic is as follows:—Take equal parts of arsenic and nitre. Place these in a tigillum, set upon coals, so that they may begin to boil and to evaporate. Continue till ebullition and evaporation cease, and the substances shall have settled to the bottom of the vessel like fat melting in a frying-pan; then, for the space of an hour and a half (the longer the better), set it apart to settle. Subsequently pour the compound upon marble, and it will acquire a gold colour. In a damp place it will assume the consistency of a fatty fluid.—*De Naturalibus Rebus*, c. 9. Again: The fixation of arsenic is performed by salt of urine, after which it is converted by itself into an oil.—*Chirurgia Minor*, Lib. II.

would require a special treatise. Beware also of sophisticated oils of vitriol and antimony. Likewise be on your guard against the oils of the metals, perfect or imperfect, as Sol or Luna ; because although the operation of these is most potent in the nature of things, yet the true process is known, even at this day, to very few persons. Abstain also from the sophistical preparations of common mercury, arsenic, sulphur, and the like, by sublimation, descension, fixation by vinegar, saltpetre, tartar, vitriol, sal ammoniac, according to the formulas prescribed in the books of the sophists. Likewise avoid the sophisticated tinctures taken from marcasites and crocus of Mars, and also of that sophistication called by the name of " a part with a part," and of fixed Luna and similar trifles. Although they have some superficial appearance of truth, as the fixation of Luna by little labour and industry, still the progress of the preparation is worthless and weak. Being therefore moved with compassion towards the well meaning operators in this art, I have determined to lay open the whole foundation of philosophy in three separate arcana, namely, in one explained by arsenic, in a second by vitriol. and in a third by antimony ; by means of which I will teach the true projection upon Mercury and upon the imperfect metals.

CHAPTER XI.

Concerning the true and perfect special arcanum of Arsenic for the white tincture.

Some persons have written that arsenic is compounded of Mercury and Sulphur, others of earth and water ; but most writers say that it is of the nature of Sulphur. But, however that may be, its nature is such that it transmutes red copper into white. It may also be brought to such a perfect state of preparation as to be able to tinge. But this is not done in the way pointed out by such evil sophists as Geber in "The Sum of Perfection," Albertus Magnus, Aristotle the chemist in "The Book of the Perfect Magistery," Rhasis and Polydorus ; for those writers, however many they be, are either themselves in error, or else they write falsely out of sheer envy, and put forth receipts whilst not ignorant of the truth. Arsenic contains within itself three natural spirits. The first is volatile, combustible, corrosive, and penetrating all metals. This spirit whitens Venus and after some days renders it spongy. But this artifice relates only to those who practise the caustic art. The second spirit is crystalline and sweet. The third is a tingeing spirit separated from the others before mentioned. True philosophers seek for these three natural properties in arsenic with a view to the perfect projection of the wise men.* But those barbers who practise surgery seek after that sweet and crystalline nature separated from the tingeing spirit for use in the cure of wounds, buboes,

* Concerning the kinds of arsenic, it is to be noted that there are those which flow forth from their proper mineral or metal, and are called native arsenics Next there are arsenics out of metals after their kind. Then there are those made by Art through transmutation. White or crystalline arsenic is the best for medicine. Yellow and red arsenic are utilised by chemists for investigating the transmutation of metals, in which arsenic has a special efficacy.—*De Naturalibus Rebus*, c. 9.

carbuncles, anthrax, and other similar ulcers which are not curable save by gentle means. As for that tingeing spirit, however, unless the pure be separated from the impure in it, the fixed from the volatile, and the secret tincture from the combustible, it will not in any way succeed according to your wish for projection on Mercury, Venus, or any other imperfect metal. All philosophers have hidden this arcanum as a most excellent mystery. This tingeing spirit, separated from the other two as above, you must join to the spirit of Luna, and digest them together for the space of thirty-two days, or until they have assumed a new body. After it has, on the fortieth natural day, been kindled into flame by the heat of the sun, the spirit appears in a bright whiteness, and is endued with a perfect tingeing arcanum. Then it is at length fit for projection, namely, one part of it upon sixteen parts of an imperfect body, according to the sharpness of the preparation. From thence appears shining and most excellent Luna, as though it had been dug from the bowels of the earth.

CHAPTER XII.

General Instruction concerning the Arcanum of Vitriol and the Red Tincture to be extracted from it.*

Vitriol is a very noble mineral among the rest, and was held always in highest estimation by philosophers, because the Most High God has adorned it with wonderful gifts. They have veiled its arcanum in enigmatical figures like the following: "Thou shalt go to the inner parts of the earth, and by rectification thou shalt find the occult stone, a true medicine." By the earth they understood the Vitriol itself; and by the inner parts of the earth its sweetness and redness, because in the occult part of the Vitriol lies hid a subtle, noble, and most fragrant juice, and a pure oil. The method of its production is not to be approached by calcination or by distillation. For it must not be deprived on any account of its green colour. If it were, it would at the same time lose its arcanum and its power. Indeed, it should be observed at this point that minerals, and also vegetables and other like things which shew greenness without, contain within themselves an oil red like blood, which is their arcanum. Hence it is clear that the distillations of the druggists are useless, vain, foolish, and of no value, because these people do not know how to extract the bloodlike redness from vegetables. Nature herself is wise, and turns all the waters of vegetables to a lemon colour, and after that into an oil which is very red like blood. The reason why this is so slowly accomplished arises from the too great haste of the ignorant operators who distil it, which causes the greenness to be consumed. They have not learnt to strengthen Nature with their own powers, which is the mode whereby that noble green

* The arcanum of vitriol is the oil of vitriol. Thus: after the aquosity has been removed in coction from vitriol, the spirit is elicited by the application of greater heat. The vitriol then comes over pure in the form of water. This water is combined with the *caput mortuum* left by the process, and on again separating in a *balneum maris*, the phlegmatic part passes off, and the oil, or the arcanum of vitriol, remains at the bottom of the vessel. – *Ibid.*

colour ought to be rectified into redness of itself. An example of this is white wine digesting itself into a lemon colour; and in process of time the green colour of the grape is of itself turned into the red which underlies the cœrulean. The greenness therefore of the vegetables and minerals being lost by the incapacity of the operators, the essence also and spirit of the oil and of the balsam, which is noblest among arcana, will also perish.

CHAPTER XIII.

Special Instruction concerning the Process of Vitriol for the Red Tincture.

Vitriol contains within itself many muddy and viscous imperfections. Therefore its greenness* must be often extracted with water, and rectified until it puts off all the impurities of earth. When all these rectifications are finished, take care above all that the matter shall not be exposed to the sun, for this turns its greenness pale, and at the same time absorbs the arcanum. Let it be kept covered up in a warm stove so that no dust may defile it. Afterwards let it be digested in a closed glass vessel for the space of several months, or until different colours and deep redness shew themselves. Still you must not suppose that by this process the redness is sufficiently fixed. It must, in addition, be cleansed from the interior and accidental defilements of the earth, in the following manner:—It must be rectified with acetum until the earthy defilement is altogether removed, and the dregs are taken away. This is now the true and best rectification of its tincture, from which the blessed oil is to be extracted. From this tincture, which is carefully enclosed in a glass vessel, an alembic afterwards placed on it and luted so that no spirit may escape, the spirit of this oil must be extracted by distillation over a mild and slow fire. This oil is much pleasanter and sweeter than any aromatic balsam of the drug-sellers, being entirely free from all acridity.† There will subside in the bottom of the cucurbite some very white earth, shining and glittering like snow. This keep, and protect from all dust. This same earth is altogether separated from its redness.

Thereupon follows the greatest arcanum, that is to say, the Supercelestial Marriage of the Soul, consummately prepared and washed by the blood of the

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* So long as the viridity or greenness of vitriol subsists therein, it is of a soft quality and substance. But if it be excocted so that it is deprived of its moisture, it is thereby changed into a hard stone from which even fire can be struck. When the moisture is evaporated from vitriol, the sulphur which it contains predominates over the salt, and the vitriol turns red.—*De Pestilitate*, Tract I.

† The diagnosis of vitriol is concerned with it both in Medicine and Alchemy. In Medicine it is a paramount remedy. In Alchemy it has many additional purposes. The Art of Medicine and Alchemy consists in the preparation of vitriol, for it is worthless in its crude state. It is like unto wood, out of which it is possible to carve anything. Three kinds of oil are extracted from vitriol—a red oil, by distillation in a retort after an alchemistic method, and this is the most acid of all substances, and has also a corrosive quality—also a green and a white oil, distilled from crude vitriol by descension.—*De Vitriolo.* Nor let it be regarded as absurd that we assign such great virtues to vitriol, for therein resides, secret and hidden, a certain peculiar golden force, not corporeal but spiritual, which excellent and admirable virtue exists in greater potency and certainty therein than it does in gold. When this golden spirit of vitriol is volatilized and separated from its impurities, so that the essence alone remains, it is like unto potable gold.—*De Morbis Amentium, Methodus* II., c. 1.

lamb, with its own splendid, shining, and purified body. This is the true supercelestial marriage by which life is prolonged to the last and predestined day. In this way, then, the soul and spirit of the Vitriol, which are its blood, are joined with its purified body, that they may be for eternity inseparable. Take, therefore, this our foliated earth in a glass phial. Into it pour gradually its own oil. The body will receive and embrace its soul; since the body is affected with extreme desire for the soul, and the soul is most perfectly delighted with the embrace of the body. Place this conjunction in a furnace of arcana, and keep it there for forty days. When these have expired you will have a most absolute oil of wondrous perfection, in which Mercury and any other of the imperfect metals are turned into gold.

Now let us turn our attention to its multiplication. Take the corporal Mercury, in the proportion of two parts; pour it over three parts, equal in weight, of the aforesaid oil, and let them remain together for forty days. By this proportion of weight and this order the multiplication becomes infinite.

CHAPTER XIV.

Concerning the Secrets and Arcana of Antimony, for the Red Tincture, with a view to Transmutation.

Antimony is the true bath of gold. Philosophers call it the examiner and the stilanx. Poets say that in this bath Vulcan washed Phœbus, and purified him from all dirt and imperfection. It is produced from the purest and noblest Mercury and Sulphur, under the genus of vitriol, in metallic form and brightness. Some philosophers call it the White Lead of the Wise Men, or simply the Lead. Take, therefore, of Antimony, the very best of its kind, as much as you will. Dissolve this in its own aquafortis, and throw it into cold water, adding a little of the crocus of Mars, so that it may sink to the bottom of the vessel as a sediment, for otherwise it does not throw off its dregs. After it has been dissolved in this way it will have acquired supreme beauty. Let it be placed in a glass vessel, closely fastened on all sides with a very thick lute, or else in a stone bocia, and mix with it some calcined tutia, sublimated to the perfect degree of fire. It must be carefully guarded from liquefying, because with too great heat it breaks the glass. From one pound of this Antimony a sublimation is made, perfected for a space of two days. Place this sublimated substance in a phial that it may touch the water with its third part, in a luted vessel, so that the spirit may not escape. Let it be suspended over the tripod of arcana, and let the work be urged on at first with a slow fire equal to the sun's heat at midsummer. Then at length on the tenth day let it be gradually increased. For with too great heat the glass vessels are broken, and sometimes even the furnace goes to pieces. While the vapour is ascending different colours appear. Let the fire be moderated until a red matter is seen. Afterwards dissolve in very sharp Acetum, and throw away the dregs. Let the Acetum be abstracted and let it be again dissolved in common distilled water,

This again must be abstracted, and the sediment distilled with a very strong fire in a glass vessel closely shut. The whole body of the Antimony will ascend as a very red oil, like the colour of a ruby, and will flow into the receiver, drop by drop, with a most fragrant smell and a very sweet taste.* This is the supreme arcanum of the philosophers in Antimony, which they account most highly among the arcana of oils. Then, lastly, let the oil of Sol be made in the following way :—Take of the purest Sol as much as you will, and dissolve it in rectified spirit of wine. Let the spirit be abstracted several times, and an equal number of times let it be dissolved again. Let the last solution be kept with the spirit of wine, and circulated for a month. Afterwards let the volatile gold and the spirit of wine be distilled three or four times by means of an alembic, so that it may flow down into the receiver and be brought to its supreme essence. To half an ounce of this dissolved gold let one ounce of the Oil of Antimony be added. This oil embraces it in the heat of the bath, so that it does not easily let it go, even if the spirit of wine be extracted. In this way you will have the supreme mystery and arcanum of Nature, to which scarcely any equal can be assigned in the nature of things. Let these two oils in combination be shut up together in a phial after the manner described, hung on a tripod for a philosophical month, and warmed with a very gentle fire ; although, if the fire be regulated in due proportion this operation is concluded in thirty-one days, and brought to perfection. By this, Mercury and any other imperfect metals acquire the perfection of gold.

CHAPTER XV.

Concerning the Projection to be made by the Mystery and Arcanum of Antimony.

No precise weight can be assigned in this work of projection, though the tincture itself may be extracted from a certain subject, in a defined proportion, and with fitting appliances. For instance, that Medicine tinges sometimes thirty, forty, occasionally even sixty, eighty, or a hundred parts of the imperfect metal. So, then, the whole business hinges chiefly on the purification of the Medicine and the industry of the operator, and, next, on the greater or lesser cleanliness and purity of the imperfect body taken in hand. For instance, one Venus is more pure than another ; and hence it happens that no one fixed weight can be specified in projection. This alone is worth noting, that if the operator happens to have taken too much of the tincture, he can correct this mistake by adding more of the imperfect metal. But if there be too much of the subject, so that the powers of the tincture are weakened, this error is easily remedied by a cineritium, or by cementations, or by ablutions

* Antimony can be made into a pap with the water of vitriol, and then purified by sal ammoniac, and in this manner there may be obtained from it a thick purple or reddish liquor. This is oil of antimony, and it has many virtues.—*Chirurgia Magna*, Lib. V. Take three pounds of antimony and as much of sal gemmæ. Distil them together in a retort for three natural days, and so you will have a red oil, which has incredible healing power in cases of otherwise incurable wounds.—*Chirurgia Minor*, Tract II., c. 11.

in crude Antimony. There is nothing at this stage which need delay the operator; only let him put before himself a fact which has been passed over by the philosophers, and by some studiously veiled, namely, that in projections there must be a revivification, that is to say, an animation of imperfect bodies—nay, so to speak, a spiritualisation; concerning which some have said that their metals are no common ones, since they live and have a soul.

ANIMATION IS PRODUCED IN THE FOLLOWING WAY.

Take of Venus, wrought into small plates, as much as you will, ten, twenty, or forty pounds. Let these be incrusted with a pulse made of arsenic and calcined tartar, and calcined in their own vessel for twenty-four hours. Then at length let the Venus be pulverised, washed, and thoroughly purified. Let the calcination with ablution be repeated three or four times. In this way it is purged and purified from its thick greenness and from its own impure sulphur. You will have to be on your guard against calcinations made with common sulphur. For whatever is good in the metal is spoilt thereby, and what is bad becomes worse. To ten marks of this purged Venus add one of pure Luna. But in order that the work of the Medicine may be accelerated by projection, and may more easily penetrate the imperfect body, and drive out all portions which are opposed to the nature of Luna, this is accomplished by means of a perfect ferment. For the work is defiled by means of an impure Sulphur, so that a cloud is stretched out over the surface of the transmuted substance, or the metal is mixed with the loppings of the Sulphur and may be cast away therewith. But if a projection of a red stone is to be made, with a view to a red transmutation, it must first fall on gold, afterwards on silver, or on some other metal thoroughly purified, as we have directed above. From thence arises the most perfect gold.

CHAPTER XVI.

CONCERNING THE UNIVERSAL MATTER OF THE PHILOSOPHERS' STONE.

After the mortification of vegetables, they are transmuted, by the concurrence of two minerals, such as Sulphur and Salt, into a mineral nature, so that at length they themselves become perfect minerals. So it is that in the mineral burrows and caves of the earth, vegetables are found which, in the long succession of time, and by the continuous heat of sulphur, put off the vegetable nature and assume that of the mineral. This happens, for the most part, where the appropriate nutriment is taken away from vegetables of this kind, so that they are afterwards compelled to derive their nourishment from the sulphur and salts of the earth, until what was before vegetable passes over into a perfect mineral. From this mineral state, too, sometimes a perfect metallic essence arises, and this happens by the progress of one degree into another.

But let us return to the Philosophers' Stone. The matter of this, as certain writers have mentioned, is above all else difficult to discover and

abstruse to understand. The method and most certain rule for finding out this, as well as other subjects—what they embrace or are able to effect—is a careful examination of the root and seed by which they come to our knowledge. For this, before all things else, a consideration of principles is absolutely necessary; and also of the manner in which Nature proceeds from imperfection to the end of perfection. Now, for this consideration it is well to have it thoroughly understood from the first that all things created by Nature consist of three primal elements, namely, natural Mercury, Sulphur, and Salt in combination, so that in some substances they are volatile, in others fixed. Wherever corporal Salt is mixed with spiritual Mercury and animated Sulphur into one body, then Nature begins to work, in those subterranean places which serve for her vessels, by means of a separating fire. By this the thick and impure Sulphur is separated from the pure, the earth is segregated from the Salt, and the clouds from the Mercury, while those purer parts are preserved, which Nature again welds together into a pure geogamic body. This operation is esteemed by the Magi as a mixture and conjunction by the uniting of three constituents, body, soul, and spirit. When this union is completed there results from it a pure Mercury. Now if this, when flowing down through its subterranean passages and veins, meets with a chaotic Sulphur, the Mercury is coagulated by it according to the condition of the Sulphur. It is, however, still volatile, so that scarcely in a hundred years is it transformed into a metal. Hence arose the vulgar idea that Mercury and Sulphur are the matter of the metals, as is certainly reported by miners. It is not, however, common Mercury and common Sulphur which are the matter of the metals, but the Mercury and the Sulphur of the philosophers are incorporated and inborn in perfect metals, and in the forms of them, so that they never fly from the fire, nor are they depraved by the force of the corruption caused by the elements. It is true that by the dissolution of this natural mixture our Mercury is subdued, as all the philosophers say. Under this form of words our Mercury comes to be drawn from perfect bodies and from the forces of the earthly planets. This is what Hermes asserts in the following terms: "The Sun and the Moon are the roots of this Art." The Son of Hamuel says that the Stone of the philosophers is water coagulated, namely, in Sol and Luna. From this it is clearer than the sun that the material of the Stone is nothing else but Sol and Luna. This is confirmed by the fact that like produces like. We know that there are only two Stones, the white and the red. There are also two matters of the Stone, Sol and Luna, formed together in a proper marriage, both natural and artificial. Now, as we see that the man or the woman, without the seed of both, cannot generate, in the same way our man, Sol, and his wife, Luna, cannot conceive, or do anything in the way of generation, without the seed and sperm of both. Hence the philosophers gathered that a third thing was necessary, namely, the animated seed of both, the man and the woman, without which they judged that the whole of their work was fruitless and in vain. Such a sperm is Mercury,

which, by the natural conjunction of both bodies, Sol and Luna, receives their nature into itself in union. Then at length, and not before, the work is fit for congress, ingress, and generation, by the masculine and feminine power and virtue. Hence the philosophers have said that this same Mercury is composed of body, spirit, and soul, and that it has assumed the nature and property of all elements. Therefore, with their most powerful genius and intellect, they asserted their Stone to be animal. They even called it their Adam, who carries his own invisible Eve hidden in his body, from that moment in which they were united by the power of the Supreme God, the Maker of all creatures. For this reason it may be said that the Mercury of the Philosophers is none other than their most abstruse, compounded Mercury, and not the common Mercury. So then they have wisely said to the sages that there is in Mercury whatever wise men seek. Almadir, the philosopher, says · "We extract our Mercury from one perfect body and two perfect natural conditions incorporated together, which indeed puts forth externally its perfection, whereby it is able to resist the fire, so that its internal imperfection may be protected by the external perfections." By this passage of the sagacious philosopher is understood the Adamic matter, the limbus of the microcosm,* and the homogeneous, unique matter of the philosophers. The sayings of these men, which we have before mentioned, are simply golden, and ever to be held in the highest esteem, because they contain nothing superfluous or without force. Summarily, then, the matter of the Philosophers' Stone is none other than a fiery and perfect Mercury extracted by Nature and Art; that is, the artificially prepared and true hermaphrodite Adam, and the microcosm. That wisest of the philosophers, Mercurius, making the same statement, called the Stone an orphan. Our Mercury, therefore, is the same which contains in itself all the perfections, force, and virtues of the Sun, which also runs through all the streets and houses of all the planets, and in its own rebirth has acquired the force of things above and things below; to the marriage of which it is to be compared, as is clear from the whiteness and the redness combined in it.

CHAPTER XVII.

Concerning the Preparation of the Matter for the Philosophic Stone.

What Nature principally requires is that its own philosophic man should be brought into a mercurial substance, so that it may be born into the philo-

* Man himself was created from that which is termed limbus. This limbus contained the potency and nature of all creatures. Hence, man himself is called the microcosmus, or world in miniature.—*De Generatione Stultorum.* Man was fashioned out of the limbus, and this limbus is the universal world.—*Paramirum Aliud*, Lib. II., c. 2. The limbus was the first matter of man. . . . Whosoever knows the limbus knows also what man is. Whatsoever the limbus is, that also is man.—*Paramirum Aliud*, Lib. IV. There is a dual limbus, man, the lesser limbus, and that Great Limbus from which he was produced—*De Podagra*, s. v. *de Limbo.* The limbus is the seed out of which all creatures are produced and grow, as the tree comes forth from its own special seed. The limbus has its ground in the word of God.—*Ibid.* The limbus of Adam was heaven and earth, water and air. Therefore, man also remains in the limbus, and contains in himself heaven and earth, air and water, and these things he also himself is.—*Paragranum Alterum*, Tract II.

sophic Stone. Moreover, it should be remarked that those common preparations of Geber, Albertus Magnus, Thomas Aquinas, Rupescissa, Polydorus, and such men, are nothing more than some particular solutions, sublimations, and calcinations, having no reference to our universal substance, which needs only the most secret fire of the philosophers. Let the fire and Azoth therefore suffice for you. From the fact that the philosophers make mention of certain preparations, such as putrefaction, distillation, sublimation, calcination, coagulation, dealbation, rubification, ceration, fixation, and the like, you should understand that in their universal substance, Nature herself fulfils all the operations in the matter spoken of, and not the operator, only in a philosophical vessel, and with a similar fire, but not common fire. The white and the red spring from one root without any intermediary. It is dissolved by itself, it copulates by itself, grows white, grows red, is made crocus-coloured and black by itself, marries itself and conceives in itself. It is therefore to be decocted, to be baked, to be fused; it ascends, and it descends. All these operations are a single operation and produced by the fire alone. Still, some philosophers, nevertheless, have, by a highly graduated essence of wine, dissolved the body of Sol, and rendered it volatile, so that it should ascend through an alembic, thinking that this is the true volatile matter of the philosophers, though it is not so. And although it be no contemptible arcanum to reduce this perfect metallic body into a volatile, spiritual substance, yet they are wrong in their separation of the elements. This process of the monks, such as Lully, Richard of England, Rupescissa, and the rest, is erroneous. By this process they thought that they were going to separate gold after this fashion into a subtle, spiritual, and elementary power, each by itself, and afterwards by circulation and rectification to combine them again in one—but in vain. For although one element may, in a certain sense, be separated from another, yet, nevertheless, every element separated in this way can again be separated into another element, but these elements cannot afterwards by circulation in a pelican, or by distillation, be again brought back into one; but they always remain a certain volatile matter, and aurum potabile, as they themselves call it. The reason why they could not compass their intention is that Nature refuses to be in this way dragged asunder and separated by man's disjunctions, as by earthly glasses and instruments. She alone knows her own operations and the weights of the elements, the separations, rectifications, and copulations of which she brings about without the aid of any operator or manual artifice, provided only the matter be contained in the secret fire and in its proper occult vessel. The separation of the elements, therefore, is impossible by man. It may appear to take place, but it is not true, whatever may be said by Raymond Lully, and of that famous English golden work which he is falsely supposed to have accomplished. Nature herself has within herself the proper separator, who again joins together what he has put asunder, without the aid of man. She knows best the proportion of every element, which man does not know, however mis-

leading writers romance in their frivolous and false recipes about this volatile gold.

This is the opinion of the philosophers, that when they have put their matter into the more secret fire, and when with a moderated philosophical heat it is cherished on every side, beginning to pass into corruption, it grows black. This operation they term putrefaction, and they call the blackness by the name of the Crow's Head. The ascent and descent thereof they term distillation, ascension, and descension. The exsiccation they call coagulation ; and the dealbation they call calcination ; while because it becomes fluid and soft in the heat they make mention of ceration. When it ceases to ascend and remains liquid at the bottom, they say fixation is present.

In this manner it is the terms of philosophical operations are to be understood, and not otherwise.

CHAPTER XVIII.

Concerning Instruments and the Philosophic Vessel.

Sham philosophers have misunderstood the occult and secret philosophic vessel, and worse is that which is said by Aristoteles the Alchemist (not the famous Greek Academic Philosopher), giving it out that the matter is to be decocted in a triple vessel. Worst of all is that which is said by another, namely, that the matter in its first separation and first degree requires a metallic vessel; in its second degree of coagulation and dealbation of its earth a glass vessel ; and in the third degree, for fixation, an earthen vessel. Nevertheless, hereby the philosophers understand one vessel alone in all the operations up to the perfection of the red stone. Since, then, our matter is our root for the white and the red, necessarily our vessel must be so fashioned that the matter in it may be governed by the heavenly bodies. For invisible celestial influences and the impressions of the stars are in the very first degree necessary for the work. Otherwise it would be impossible for the Oriental, Chaldean, and Egyptian stone to be realised. By this Anaxagoras knew the powers of the whole firmament, and foretold that a great stone would descend from heaven to earth, which actually happened after his death. To the Cabalists our vessel is perfectly well known, because it must be made according to a truly geometrical proportion and measure, and from a definite quadrature of the circle, so that the spirit and the soul of our matter, separated from their body, may be able to raise this vessel with themselves in proportion to the altitude of heaven. If the vessel be wider, narrower, higher, or lower than is fitting, and than the dominating operating spirit and soul desire, the heat of our secret philosophic fire (which is, indeed, very severe), will violently excite the matter and urge it on to excessive operation, so that the vessel is shivered into a thousand pieces, with imminent danger to the body and even the life of the operator. On the other hand, if it be of greater capacity than is required in due proportion for the heat to have effect on the matter, the

work will be wasted and thrown away. So, then, our philosophic vessel must be made with the greatest care. What the material of the vessel should be is understood only by those who, in the first solution of our fixed and perfected matter have brought that matter to its own primal quintessence. Enough has been said on this point.

The operator must also very accurately note what, in its first solution, the matter sends forth and rejects from itself.

The method of describing the form of the vessel is difficult. It should be such as Nature requires, and it must be sought out and investigated from every possible source, so that, from the height of the philosophic heaven, elevated above the philosophic earth, it may be able to operate on the fruit of its own earthly body. It should have this form, too, in order that the separation and purification of the elements, when the fire drives one from the other, may be able to be accomplished, and that each may have power to occupy the place to which it adheres; and also that the sun and the other planets may exercise their operations around the elemental earth, while their course in their circuit is neither hindered nor agitated with too swift a motion. In all these particulars which have been mentioned it must have a proper proportion of rotundity and of height.

The instruments for the first purification of mineral bodies are fusing-vessels, bellows, tongs, capels, cupels, tests, cementatory vessels, cineritiums, cucurbites, bocias for aquafortis and aqua regia; and also the appliances which are required for projection at the climax of the work.

CHAPTER XIX.

Concerning the Secret Fire of the Philosophers.

This is a well-known sententious saying of the philosophers, "Let fire and Azoc suffice thee." Fire alone is the whole work and the entire art. Moreover, they who build their fire and keep their vessel in that heat are in error. In vain some have attempted it with the heat of horse dung. By the coal fire, without a medium, they have sublimated their matter, but they have not dissolved it. Others have got their heat from lamps, asserting that this is the secret fire of the philosophers for making their Stone. Some have placed it in a bath, first of all in heaps of ants' eggs; others in juniper ashes. Some have sought the fire in quicklime, in tartar, vitriol, nitre, etc. Others, again, have sought it in boiling water. Thomas Aquinas speaks falsely of this fire, saying that God and the angels cannot do without this fire, but use it daily. What blasphemy is this! Is it not a manifest lie that God is not able to do without the elemental heat of boiling water? All the heats excited by those means which have been mentioned are utterly useless for our work Take care not to be misled by Arnold de Villa Nova, who has written on the subject of the coal fire, for in this matter he will deceive you.

Almadir says that the invisible rays of our fire of themselves suffice.

Another cites, as an illustration, that the heavenly heat by its reflections tends to the coagulation and perfection of Mercury, just as by its continual motion it tends to the generation of metals. Again, says this same authority, "Make a fire, vaporous, digesting, as for cooking, continuous, but not volatile or boiling, enclosed, shut off from the air, not burning, but altering and penetrating. Now, in truth, I have mentioned every mode of fire and of exciting heat. If you are a true philosopher you will understand." This is what he says.

Salmanazar remarks: "Ours is a corrosive fire, which brings over our vessel an air like a cloud, in which cloud the rays of this fire are hidden. If this dew of chaos and this moisture of the cloud fail, a mistake has been committed." Again, Almadir says, that unless the fire has warmed our sun with its moisture, by the excrement of the mountain, with a moderate ascent, we shall not be partakers either of the Red or the White Stone.

All these matters shew quite openly to us the occult fire of the wise men. Finally, this is the matter of our fire, namely, that it be kindled by the quiet spirit of sensible fire, which drives upwards, as it were, the heated chaos from the opposite quarter, and above our philosophic matter. This heat, glowing above our vessel, must urge it to the motion of a perfect generation, temperately but continuously, without intermission.

CHAPTER XX.

Concerning the Ferment of the Philosophers, and the Weight.

Philosophers have laboured greatly in the art of ferments and of fermentations, which seems important above all others. With reference thereto some have made a vow to God and to the philosophers that they would never divulge its arcanum by similitudes or by parables.

Nevertheless, Hermes, the father of all philosophers, in the "Book of the Seven Treatises," most clearly discloses the secret of ferments, saying that they consist only of their own paste; and more at length he says that the ferment whitens the confection, hinders combustion, altogether retards the flux of the tincture, consoles bodies, and amplifies unions. He says, also, that this is the key and the end of the work, concluding that the ferment is nothing but paste, as that of the sun is nothing but sun, and that of the moon nothing but moon. Others affirm that the ferment is the soul, and if this be not rightly prepared from the magistery, it effects nothing. Some zealots of this Art seek the Art in common sulphur, arsenic, tutia, auripigment, vitriol, etc., but in vain; since the substance which is sought is the same as that from which it has to be drawn forth. It should be remarked, therefore, that fermentations of this kind do not succeed according to the wishes of the zealots in the way they desire, but, as is clear from what has been said above, simply in the way of natural successes.

But, to come at length to the weight; this must be noted in two ways.

The first is natural, the second artificial. The natural attains its result in the earth by Nature and concordance. Of this, Arnold says: If more or less earth than Nature requires be added, the soul is suffocated, and no result is perceived, nor any fixation. It is the same with the water. If more or less of this be taken it will bring a corresponding loss. A superfluity renders the matter unduly moist, and a deficiency makes it too dry and too hard. If there be over much air present, it is too strongly impressed on the tincture; if there be too little, the body will turn out pallid. In the same way, if the fire be too strong, the matter is burnt up; if it be too slack, it has not the power of drying, nor of dissolving or heating the other elements. In these things elemental heat consists.

Artificial weight is quite occult. It is comprised in the magical art of ponderations. Between the spirit, soul, and body, say the philosophers, weight consists of Sulphur as the director of the work; for the soul strongly desires Sulphur, and necessarily observes it by reason of its weight.

You can understand it thus: Our matter is united to a red fixed Sulphur, to which a third part of the regimen has been entrusted, even to the ultimate degree, so that it may perfect to infinity the operation of the Stone, may remain therewith together with its fire, and may consist of a weight equal to the matter itself, in and through all, without variation of any degree. Therefore, after the matter has been adapted and mixed in its proportionate weight, it should be closely shut up with its seal in the vessel of the philosophers, and committed to the secret fire. In this the Philosophic Sun will rise and surge up, and will illuminate all things that have been looking for his light, expecting it with highest hope.

In these few words we will conclude the arcanum of the Stone, an arcanum which is in no way maimed or defective, for which we give God undying thanks. Now have we opened to you our treasure, which is not to be paid for by the riches of the whole world.

HERE ENDS THE AURORA OF THE PHILOSOPHERS.

CONCERNING THE SPIRITS OF THE PLANETS.*

PROLOGUE.

HAVING first of all invoked the name of the Lord Jesus Christ our Saviour, we will enter upon this work; in which we shall not only teach how to change any inferior metal into better, as iron into copper, copper into silver, and silver into gold, but also to heal all infirmities which to the pretentious and presumptuous physicians seems impossible; and—what is more still—to preserve men to a long, healthy, and perfect age. This Art was bestowed by the Lord our God, the supreme Creator, graven, as if in a book, in the body of the metals from the beginning of Creation to this end, that we might diligently learn from them. When, therefore, any man desires thoroughly and perfectly to become acquainted with this Art from its veritable foundation, it will be necessary that he should learn the same from the Master thereof, that is, from God, who created all things; who also alone knows what nature and properties He has placed in every creature. He, therefore, is able to teach every one certainly and perfectly; and from Him we can be taught absolutely what he means when he says, "Of Me ye shall learn all things." For nothing in Heaven or on earth is found so occult that He who created all things does not see through its properties, and know and perceive all. We will therefore take Him to be our Master, Operator, and Leader into this most veritable Art. Him alone will we imitate, and through Him learn and attain to the knowledge of that Nature which He Himself has, with His own finger, engendered and written on the bodies of these metals. Hence it will come to pass that the Most High Lord God will bless all His creatures in us, and will sanctify all our ways, so that in this work we may be able to bring our beginning to its desired end, and to attain the deepest joy and charity in our hearts.

But if any one shall follow his own mere private opinion, he will not only greatly deceive himself, but also all others who shall cast in their lot with him, and will bring them to great trouble. For man is assuredly born in ignorance, so that he cannot know or understand anything of himself, but only that which he receives from God, and understands from Nature. He who learns

* This treatise is not included in the Geneva folio, and, both in style and in the method of treatment, it corresponds closely to the Aurora. The edition made use of for this translation is the Basle 8vo. of 1570. A considerable portion of the work enters into the Paracelsican congeries, entitled *De Transmutationibus Metallorum*, Frankfort, 1681.

nothing from these is like the heathen teachers and philosophers, who follow the subtleties and crafts of their own inventions and opinions. Such teachers are Aristotle, Hippocrates, Avicenna, Galen, and the rest, who based all their arts simply upon their own opinions. Even if, at any time, they learnt anything from Nature, they destroyed it again with their own fantasies, dreams, and inventions, before they came to the final issue. By means of these, then, and their followers, nothing perfect can be discovered.

This it is which has moved and incited us to write a special book concerning Alchemy, basing it not on men, but on Nature herself, and upon those virtues and powers which God, with His own finger, has impressed upon metals. The initiator of this impression was Mercurius Trismegistus. He is not without due cause called the father of all wise men, and of all who followed this Art with love and earnest desire. He teaches and proves that God is the only author, cause, and origin of all creatures in this Art.* But he does not attribute the power and virtue of God to creatures or to visible things, as did the heathen mentioned above, and others like them.

Seeing, then, that all art must be learned from the Trinity, that is, from God the Father, God the Son, Jesus Christ, and God the Holy Ghost, three distinct persons, but one God, we will also divide this our alchemical work into three short treatises. In the first of these we will lay down what it is which the Art itself embraces, and what is the property and nature of every metal. Secondly, by what method a man may work and bring similar powers and forces of metals to a successful issue; and, thirdly, what tinctures are to be produced from the Sun and from the Moon.

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* All arts which flourish on this earth are divine, all are from God; from no other principle do they originate. The Holy Spirit is the enlarger of the light of Nature. . . . Man of himself can discover nothing. . . . What things soever are found by the enlargement of this light of Nature within us, the same does the devil seek to corrupt, adulterate, and convert into falsehood. Thus are all arts and operations corrupted at this day. Even so is Alchemy debased and given over to lying tongues and depraved professors.—*Paragranum*, Tract IV.

CHAPTER I.

Concerning Simple Fire.

IN the first place, it is necessary to state clearly what this Art comprises, what is its subject, and what its peculiarities.

First and chiefly, the principal subject of this Art is fire, which always exists in one and the same property and mode of operation, nor can it receive its life from anything else.* It possesses, therefore, a state and power, common to all fires which lie hid in secret, of vivifying, just as the sun is appointed by God, and heats all things in the world, both occult, apparent, and manifest, as the spheres of Mars, Saturn, Venus, Jupiter, Mercury, and the Moon, which can shine only as they borrow their light from the Sun, and are in themselves dead. When, however, they are lighted up, as said above, they live and work according to their special properties. But the sun receives light from no other source than God Himself, Who rules it, so that in the sun God Himself is burning and shining. Just so is it with this Art.† The fire in the furnace may be compared to the sun. It heats the furnace and the vessels, just as the sun heats the vast universe. For as nothing can be produced in the world without the sun, so also in this Art nothing can be produced without this simple fire. No operation can be completed without it. It is the Great Arcanum of Art,‡ embracing all things which are comprised therein, neither can it be comprehended in anything else. It abides by itself, and needs nothing; but all others which stand in need of this can get fruition of it and have life from it, wherefore, first of all, we have undertaken that this shall be made clear.

CHAPTER II.

Concerning the Multiplicity of Fire from whence spring the varieties of Metals.

Having first written concerning the simple fire which lives and subsists *per se*, it now remains to speak of a manifold spirit or fire which is the cause of variety or diversity of creatures, so that not one can be found exactly like

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* Fire is not to be regarded as an element, and so there is a distinction between fire and the firmament, which latter is an element. Fire is a matter which cooks and disintegrates, reducing into the ultimate matter, and, in this sense, fire and death are alike. For fire, like death, consumes and devours everything. Therefore, fire cannot be an element, but it can be, and is, a visible and sensible death. The other death is invisible, and is seen by no man.—*Lib. Meteorum*, c. 1.

† The congeries *De Transmutationibus Metallorum*, to which reference has already been made, gives the following variation in the reading at this point: Just so in the Spagyric art is this fire of athanor and the secret fire of the philosophers, which heats the furnace, the sphere of the vessel, and the fire of the matter, just as the sun is seen to operate in the whole world.

‡ All arcana derive from the firmament.—*Fragmenta Modus Pharmacandi*, Lib. II., Tract 1. But that fire which is an element is the firmament, and the stars are the fruits thereof.—*Lib. Meteorum*, c. 1.

another and identical in every part. This may be seen in the case of metals where no one has another exactly like itself. The Sun produces gold; the Moon another and widely different metal, namely, silver; Mars, another, namely, iron; Jupiter, tin; Venus, copper; and Saturn yet another, namely, lead; so that all these are unlike. In the same way does it hold good with men and other creatures, and the cause of this diversity is the manifoldness of fire. For example, the *Venter Equinus* produces one kind of creature through the moderate heat generated by its corruption; the *Balneum Maris* produces another; ashes another; sand, in like manner, another; the flame of fire another; coals another, and so on. This variety of creatures is not produced by the first simple fire, but from the regimen of the elements, which is various, not from the sun, but from the courses of the seven planets. And this is the reason why the universe contains no likeness amongst its individuals. For as the heat is changed every hour and minute, so all other things vary. For this transmutation takes place in the elements, on the bodies whereof it is impressed by this fire. Where there is no great mixture of the elements, Sol is produced; where it is a little more dense, Luna; where still more so, Venus; and thus according to the diversity of mixtures are produced different metals, so that no metal appears in its mineral exactly like another. It should be known, therefore, that this variety of metal is occasioned by the mixture of the elements, because that the spirits of these elements are found to be diverse and without likeness: whereas, if they were born of simple fire they would be so much alike that one could not be distinguished from another. But the manifold fire intervening, variety of form is introduced among creatures. Hence it may be easily gathered why so many and such varied forms of metals are found, and why no one is like another.*

CHAPTER III.

Concerning the Spirit or Tincture of Sol.

Let us now come to the spirits of the planets, or of the metals. The spirit or tincture of Sol took its beginning from a pure, subtle, and perfect fire,

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* That fire, then, is manifold which is varied according to the diversity of the subject whereinto it flows, and by means whereof it is afterwards kindled in other subjects, as the fire of ashes, sand, the bath, filings, etc., has a mediated heat flowing from an immediate source into the subject-matter of the instrument, and from hence into the matter underlying the Art. In that manifold fire there is a difference of position. This is for the reason that nothing in the nature of things can be seen which is in all respects like to any other thing, though both come under the same species, nay, though both may be members in the same individual. One metal produces gold from that which generates silver; another brings forth the metal of Saturn, of Venus, or of Mars. Each one of these is varied according to the difference of the place whence it proceeded and was created. No two men, no two members of the same body, no two leaves of the same tree, are found exactly alike: and so of the rest. Dissimilarity proceeds not from the first fire of created things, but from the differing rule over the elements by means of the planets, and not by the sun. Every moment, by this disposition of things, the heat in the elements varies, and at the same time the form of decomposed things from their compounds, though not from the simples. Where the mixture of the elements is not so great, there is generated Sol; where it is a little greater, and less pure, is generated Luna; from that which is still more imperfect, Venus; and so of the rest, according to the mixture of the elements, the mineral of each metal is not like another, nor do the spirits of them in all respects agree one with the other. If they were generated from the simple fire alone, without the intervention of the manifold, no distinction of forms could occur either in metals or in any other created things. Why there are in use no more than seven metals, of which six are solid and the seventh fluid and thin, is explained in adept philosophy but not in Alchemy.—*De Transmutationibus Metallorum*, c. 3. But this statement concerning the seventh fluidic metal seems to be at variance with other teaching of Paracelsus, to which a congeries that has been subject to editing must naturally defer.

for which reason it far surpasses all the other spirits and tinctures of the metals. It remains constantly and fixed in the fire, nor does it fly therefrom, nor is consumed by it, but rather by its agency it becomes clearer, purer, and more beautiful. Nothing either hot or cold can injure it, or any other accident, as they can injure the other spirits or tinctures of metals, and for this reason: that the body which it once assumes it defends from all accidents and diseases, and enables it to sustain the fire without injury. This body has not such power and virtue in itself; but derives it from the spirit alone which is shut up within it. For we know with regard to the body of Mercury that it cannot sustain or endure the fire, but flies from it; but when in Sol it does not fly off but remains fixed and constant, this affords a most certain proof that it receives such a constancy from the spirit or tincture of Sol.* If, therefore, this spirit can be in Mercury, any one can infer that it would have some similar effect in the bodies of men when it is received therein. In our *Chirurgia Magna* we have said concerning the tincture of Sol that it will not only restore and preserve from weaknesses one who uses it, but also conserve him for a long and healthy life.† In like manner, the strength and virtue of other metals may be known from true experience, not from the wisdom of men and of the world, which is foolishness with God, and with His truth; and all who build and rest their hope on that wisdom are miserably deceived.

CHAPTER IV.

Concerning the Spirit and Tincture of Luna.

After having spoken with sufficient clearness concerning the tincture of Sol, it remains to put forward something about the tincture of Luna, and of the White Tincture which, in like manner, is produced from the perfect spirit, though it be less perfect than the spirit of Sol; but, nevertheless, it excels in purity and subtlety all the other tinctures of the metals which follow it in order This, indeed, is well known to all who handle Luna, even rustics. It does not

* It is well understood that the body of Sol is Mercury, which cannot at all stand the fire, but flees from it.—*De Transmutationibus Metallorum*, c. 10.

† In the collection of treatises to which reference is here made, there is the following process for the manufacture of a tincture of gold:—Let the body be first deprived of its metallic and malleable nature; that is to say, let it be corrupted; then let the residue be cleansed with sweet water, and the colour extracted by means of spirit of wine, when the desired tincture will remain at the bottom. To compose the Water of Salt: Take very white salt, but not that which has been whitened artificially; melt it several times; reduce it to an exceedingly subtle powder; mix it with the sap of raphanum. Shake it. Distil, after resolution, with an equal portion of the sap of blood. Then again distil five times. Thin plates of gold which have been purged by antimony are easily reduced to powder in this water. The powder thus prepared must be washed with sweet distilled water until it no longer savours of salt. As the salt does not penetrate into its substance it is easily removed by ablution. To compose the Spirit of Wine: Take one sextarius (about a pint) of generous wine; let it be poured into a circulatory vessel of appropriate size, that is, of such capacity that the wine can be shaken therein. Place it in a Balneum Maris to the depth which the wine occupies, and decoct for ten days. Seal all apertures of the vessels, so that nothing can escape. Then place in a cucurbite, and abstract the spirit by a slow fire. As soon as it has passed away (which you will know by the usual signs), cease to urge the fire, for the residue is a simple sublimate. Pour the spirit of wine upon the above-mentioned powder (which should be like alcohol) to the height of a palm, enclose it in a glass, keep it for a month in a warm bath to digest, when the colour will be separated and commingled with the spirit. A white powder will remain at the bottom. Having separated all these things, melt the powder, and it will be separated into a metallic water. Evaporate the spirits according to art, and the desired spirit will remain at the bottom. Perform its gradation in a retort of the proper size. This is done most conveniently by elevation, which is highly attenuating.—*Chirurgia Magna*, Part II., Tract III., c. 2.

acquire rust, nor is it consumed in the fire like the other metals, all of which Saturn draws with himself when flying from the fire, but not this one.* Hence it may be gathered that this tincture is far more excellent than those set down below, for it preserves in the fire the body it has assumed without any accident or loss. Hence it is quite clear that if this in its own corruptible body by itself produces Mercury, what it will be able to effect when extracted from it into another body. Will not that in the same way protect and defend from accidents and infirmities? Surely if it produces this Mercury in its own body, it will do the same in the bodies of men.† And it not only preserves health, but causes long life, and cures diseases and infirmities, even those which are beyond its own special grade. For the higher, more subtle, and more perfect a medicine is, so much the better and more perfectly it cures. Wherefore those are mere ignorant physicians who waste their skill only on vegetables, as herbs and the like, which are easily corrupted. With these they endeavour to accomplish results which are firm and fixed, but they do this vainly as those who beat the air. But why speak at length about these? They have not learnt better in their universities. If they were compelled to go back to the beginning, learn and study, they would think it a great disgrace. Therefore they remain in their former ignorance.

CHAPTER V.

Concerning the Spirit of Venus.

We have before made mention of a White Spirit, or colourless Tincture. Now we proceed to speak of a red spirit, which is produced from a thick elemental mixture of the former, to which also it is subject, though, nevertheless, it is more perfect than the spirits and tinctures of the succeeding metals. On this account it remains in the fire more constantly than the rest, so that it is not so soon burnt, nor does it so soon pass away as the other spirits which follow. The air also and the moisture of water are not so injurious to it as to Mars, just as it remains more fixedly and for a longer time in the fire. Venus has this force and property, that is to say, its body has, on account of the spirit which has been infused into it. Since, then, it produces this effect in its own body, that is, in Venus, it accomplishes as much also in man as is by Nature conceded to it. It preserves wounds in such a way that no accident can affect them, nor can the air or the water injure them. It also drives away all such diseases as are under its degree. This spirit further breaks up the bodies of metals so that they lose their malleability.‡ In the bodies of men, too,

* Molten lead destroys all the metals, including itself, by means of the fire, except Sol and Luna.—*Congeries Paracelsica*, c. 10.

† Since, then, the spirit of Luna is able to protect from all injury by fire or other accidents the body into which it enters, that is to say, Mercury, and to render it consistent, it is easy to gather from this, if it produces such an effect in the case of an instable and volatile body like Mercury, how much more powerfully it will act when disengaged from its own body and projected into the human body.—*Ibid.*

‡ On the other hand, if it be mixed with certain metals, even among those which are perfect, it tears asunder their bodies, so that they are no longer malleable, or capable of being treated in any way until they are set free from it.—*Ibid.*

when it is taken for a disease to which it is not suitable, it produces inconvenient results.* It is necessary, therefore, that the physician who desires to use these should be experienced, and have a good knowledge of metals. It is far better, then, to use the more perfect spirits, which may be taken without any such fear of danger. Still, since the spirits of Sol and Luna are costly, so that it is not every one who can use them for curative purposes, every one must take according to his means whatever he can get and pay for.† Every one is not of such wealth that he can prepare these medicines, so each is compelled to do what he can. Every one will easily be able to gather from what has been said that metallic medicines far exceed vegetable and animal products in their strength and power of healing. So far we have said enough, and more than enough, concerning the spirit of Venus.‡

CHAPTER VI.

Concerning the Spirit of Mars.

Speaking of the Spirit of Mars, this comes from a more dense and combustible mixture of the elements than was the case with the others which precede. But Mars is furnished with greater hardness than the other metals, so that it is not melted in the fire as they are. True, it is hurt by the water and the air more than they are, insomuch that it is altogether destroyed by these influences, and it is also burnt in the fire, as experience proves. So, then, its spirit is less perfect than that of any of the above. But in hardness and dryness it exceeds all the metals above or below. For not only does it render the perfect metals, Sol and Luna, proof against the hammer, but even those which rank below itself, as Jupiter, Saturn, and the like.§ Since, then, it produces this effect on metals, this is a sign that it has the same effect on the bodies of men, that is, it produces a struggling; especially when it is taken for a disease to which it is not adapted, it contorts the limbs with great pain. But when it is used and applied for wounds which do not exceed its degree, it is of powerful cleansing qualities. So, then, this spirit is endowed with no less power and potency than are of those above, so far as regards those things for which it was appointed by God and by Nature.

CHAPTER VII.

Concerning the Spirit of Jupiter.

Concerning the spirit of Jupiter this should be known, that it is derived from the white and pale substance of fire, together with a nature of peculiar

* In these cases it produces contraction of the limbs.—*Ibid.*

† It would, however, be safer to use only the spirits of the perfect metals, unless gold and silver are too expensive for a patient's resources, or too difficult in their preparation for the talent and skill of any particular physician. In that case he may be compelled to do what he has learnt to do, that is, to treat such cases with vegetable and animal preparations.—*Ibid.*

‡ Under favourable astrological circumstances, many tinctures can be extracted from Venus.—*De Causis et Origine Luis Gallicæ*, Lib. I., c. II.

§ Nevertheless, it surpasses any other metals in hardness and dryness, destroying and decomposing them by admixture with them, and this in the case of the perfect no less than of the imperfect metals.—*Congeries Paracelsica*, c. 10.

crepitation and fragility, not malleable like Mars. It, therefore, heats other metals, and renders them capable of being broken with hammers. An example of this may be seen when it is joined with Luna, for it can scarcely be brought to its former malleability, except with the greatest labour.* The same effect it produces in all other metals, with the single exception of Saturn. If it produces this effect in the bodies of metals, it will do the same in human bodies. In these it corrodes the limbs with severe burnings and decay, so that they are completely cut off from their perfect workings, and lose them, so that they are unable to fulfil the necessary requirements of Nature. Nevertheless this spirit has in it the virtue of removing cancer, fistulas, and other similar ulcers, especially those which are of its own nature, and which do not exceed the degree which God and Nature have given to it.

CHAPTER VIII.

Concerning the Spirit of Saturn.

The spirit of Saturn is concrete and formed from a dry, dark, cold admixture of elements. Hence it results that, amongst all others, it has the least power of remaining and living in the fire. When, however, Sol and Luna have to be proved and purified, Saturn is added to them, and this has the effect of thoroughly purging them. Nevertheless, it is of that nature that it takes away their malleability.† It has the same effect on men, with great pains, as Jupiter and Mars. Being mixed with cold, it cannot act mildly.‡ It has the very greatest powers and virtues, whereby it cures fistulas, cancer, and similar ulcers, which come under its own degree and nature. It drives the same kind of diseases from man as it expels impurities from Luna. But if it does not go out altogether at the same time, it brings more harm than it does good. Consequently, whoever would use it must know what diseases it cures, against what it should be taken, and what effects Nature has assigned to it. If this be well considered it can do no harm.

CHAPTER IX.

Concerning the Gross Spirit of Mercury.

The spirit of Mercury, which is only subjected to the spirits above, has no determinate or certain form in itself. Hence it happens that it admits every metal, just as wax receives all seals, of whatever form. So this dense elementary spirit may be compared to the other spirits of the metals. For if it receive into itself the spirit of Sol, Sol will be produced from it; if Luna, Luna; and in like manner it does with the other metals. It agrees with them and takes their properties to itself. For this reason, so far as relates to its

* By mixture with other metals it corrupts and decomposes them, especially Luna, and only with great labour can it be separated therefrom.—*Ibid.*

† It leaves them broken and decomposed after washing.—*Ibid.*

‡ It distorts the limbs . . . with more severe pains than even tin and iron; but seeing that this spirit is coagulated with a much more intense cold than others, it does not act so violently.—*Ibid.*

body, it is appropriated to the spirits spoken of above, just as a woman to a man. For Sol is the body of Mercury, save only that Sol fixes Mercury and becomes fixed. The common Mercury is inconstant and volatile ; nevertheless it is subject to all the abovementioned ; and generates again not only the aforesaid metallic spirits and tinctures, but the metal itself by which the beforenamed tinctures arrive at their working. But if moderation be not observed it is impossible to perfect a tincture of this kind. If the fire which ought to vivify this tincture be too fierce, the operation will be fruitless ; and so if it be too weak. Therefore it is necessary at this point to know what is the mean in this Art, and what powers and properties it has ; also by what means it is to be ruled, and how to tinge the tinctures, or bring them to their perfect operation, so that they may germinate and become apparent. With these few words we would conclude this first tract.*

* It is prepared, then, so far as the body is concerned, from the aforesaid spirits, just as his wife is prepared for a husband, not by corporeal admixture, but when the spirit has been educed from its own metal and projected, after preparation, into Mercury, then at length it exhibits its transmutation. – *Ibid.*

THE END OF THE FIRST TREATISE.

THE SECOND TREATISE.

Concerning the Philosopher's Mercury, and the Medium of Tinctures.

IN the first treatise we have written concerning the spirits of the metals, their tinctures, etc., making clear their properties and natures, and what each separate metal generates. In this second we will treat of the medium of tinctures, that is, the Philosophers' Mercury, whereby are made tinctures and fermentations of the metals; in seven chapters, as follows :—

CHAPTER I.

From what Tinctures and Leavens are Made.

Whoever wishes to have a tincture of the metals, must take Philosophers' Mercury, and project it to its own end; that is, into the quick mercury from whence it proceeded.* Hence will ensue that the Philosophers' Mercury will be dissolved in the quick mercury, and shall receive its strength, so that the Philosophers' Mercury shall kill the quick mercury and render it fixed in the fire like itself. For there is between these two mercuries as much agreement as between a man and his wife. They are both produced from the gross spirits of metals, except that the body of Sol remains fixed in the fire, but the quick mercury is not fixed. The one, however, is appropriated to the other as grain or seed to the earth, which we will illustrate by an example, thus: If anyone has sown barley he will gather barley; if corn, corn, etc. None otherwise is it in this Art. If anyone sows Sol he will gather gold, while from Luna he will collect silver, and so with regard to the other metals. In this way we say here tinctures are produced from the metals, that is, from the Philosophers' Mercury and not from quick mercury. But this produces the seed which it had before conceived.†

* Notwithstanding, the tincture of mercury is a supreme secret.—*De Ulcerum Curatione*, c. 10.

† The dead wife of the metal, like an uncultivated field or soil, if it be macerated or revivified by the philosophic plough (the wife remaining fixed and incorrupt during the process), it is united to the aforesaid corporal spirit by the grades of fire, into its own nature and substance, and this with the dead body of the metal. Now, this cannot be done with the crass spirit of mercury. And although the mercury or quicksilver of Sol exists and is fixed, nevertheless the common mercury, not as yet fixed, never attains to resurrection. For the resurrection of the metals is an immortal regeneration, and the medium whereby tinctures of this kind are advanced to their generation. On this account, therefore, it cannot be united to dead bodies so as to bring about their fixation, but only to extracted spirits, as to those corporeal ones above-mentioned, which are subject to the metals just as common mercury is to all metallic spirits. The crass spirit of mercury can no more generate this tincture in its substance than a concubine can bring forth legitimate offspring. In the same way must it be judged concerning the crass spirit of mercury, until the metallic and corporal spirit is produced by means of the natural matter. Without this medium it will be impossible for anything good or perfect to be accomplished in tinctures of this kind. Moreover, if the fire be too intense it cannot generate ; if too slack, the same result ensues.—*De Transmutationibus Metallorum*, c. 10.

CHAPTER II.

Concerning the Conjunction of the Man with the Woman.

In order that the Philosophers' Mercury and the quick mercury may be joined, and this latter united with the fixed, it must of necessity be known how much of it must be taken, since more or less than the proper quantity may hinder or altogether destroy the whole business. For by superfluity the seed is suffocated, so that it cannot live until it is fixed by the Philosophers' Mercury. But by defect, since the body cannot be altogether dissolved, it is also destroyed so that it is able to produce no fruit. Wherefore it should be clearly ascertained how much of the one and the other ought to be taken, if, indeed, the artificer would bring this work to its legitimate end. Let the receipt be as follows, namely: Take one part to two, or three to four, and you will not err, but will arrive at the desired end.

CHAPTER III.

Concerning the form of the Glass Instruments.

When the matter has been rightly joined, it is necessary that you should have properly-proportioned glass vessels, neither larger nor smaller than is right. If they are too large, the woman, that is, the phlegm, is dispersed, whence it ensues that the seed cannot be born; where they are too small the germ is suffocated so that it cannot come to fruit, just as when seed is sown under a tree, or among thorns, it cannot germinate, but perishes without fruit. No slight error, therefore, may arise through the vessels; and when once this has occurred it cannot again be remedied in the same operation, nor can it arrive at a satisfactory issue. Wherefore note what follows, namely, that you take three ounces and a half and four pounds; thus, having proceeded rightly, you will save the matter from being dispersed, and prevent the phlegm, or the germination, from being impeded.

CHAPTER IV.

Concerning the Properties of Fire.

After you have placed the matter in the proper vessels, you will cherish it with natural heat, so that the outside shall not exceed the inside. For if the heat be excessive, no conjunction will take place, because by the intense heat the matter is dispersed and burnt, so that no advantage arises from it. On this account the mid region of the air has been arranged by Nature between heaven and earth; otherwise the sun and the stars would burn up all the creatures on the earth, so that nothing could be produced from it. Take care, therefore, that between the matter and the fire you interpose an airy part of this kind, or a certain distance. In this way the heat will not easily be able in any way to do injury, nor to disperse, and still less to burn. For if the heat be insufficient neither will the spirit rest acting in no way upon

its own humidity; so it will be dried or fixed. For the spirits of metals are of themselves dead, and rest, and can effect nothing unless they are vitalised. None otherwise in the great world the seed cast into the earth is dead, and cannot grow of itself unless it be vitalised by the heat of the sun. In the very first place, therefore, is it necessary to build the fire for this work in just proportion, neither too large nor too small; otherwise this work will never be carried on to its desired and perfect end.

CHAPTER V.

Concerning the Signs which appear in the Union of Conjunction.

When the regimen of the fire is moderated, the matter is by degrees moved to blackness. Afterwards, when the dryness begins to act upon the humidity, various flowers of different colours simultaneously rise in the glass, just as they appear in the tail of the peacock, and such as no one has ever seen before. Sometimes, too, the glass looks as though it were entirely covered with gold. When this is perceived, it is a certain indication that the seed of the man is operating upon the seed of the woman, is ruling it and fixing it. That is, the fixed Mercury acts on the quick, and begins to embrace it. Afterwards, when the humidity has died out before the process of drying, those colours disappear, and the matter at length begins to grow white, and continues to do so until it attains the supreme grade of whiteness. In the very first place, care should be taken not to hasten the matter unduly, according to the opinion of those who think that such a process is in all respects like what is perceived in the growth of corn, or in the production of a human being, the latter process occupying nine months, the former ten or twelve. Sol and Luna do not ripen so soon, or are born so soon, as the child from its mother's womb, or the grain from the womb of the earth. The higher and more perfect anything is and should be in its nature, the longer time is necessary for its production. For it should be known that everything which is born quickly perishes quickly. Both herbs and men afford a proof of this. In proportion as they are quickly produced or born is their life short. It is not so with Sol and Luna; but they have a more perfect nature than men; whence it ensues that they exhibit a long life for men and preserve them from many accidental diseases.

CHAPTER VI.

Concerning the Knowledge of the Perfect Tincture.

In the preceding chapter we have said how the matter itself is graduated. In this we will make clear by what means it may be recognised when it is perfect. Do this: When the White Stone of Luna stands forth in its whiteness, separate a morsel from it with the forceps, and place it glowing over the fire on a plate of copper. If the Stone emits smoke it is not yet perfect, wherefore it must be left longer in decoction, until it comes to the grade of a perfect Stone. But if it emits no smoke, you may believe it to be perfect. In the same way proceed with the Red Stone of Sol in its due gradation.

CHAPTER VII.

Concerning the Augmentation or the Multiplying of Tinctures.

When you wish to augment or to multiply the tincture which you have found, join it again with the common mercury. Proceed in all respects as before, and it will tinge a hundredfold more than it did previously. You can repeat this as often as you wish, so as to have as much of the matter as you desire. The longer it remains in the fire, the more highly graduated it becomes, so that one part of it will transmute an infinite number of parts of quick mercury into the best Luna and the most perfect Sol. Thus you have the whole process from the beginning to the end. With these few words we will conclude this second treatise, and will now begin the third.

The End of the Second Treatise.

THE THIRD TREATISE.

IN the second treatise we have described the method by which the tinctures or fermentations should be produced. In this third we will say how the tinctures of Sol and Luna are made. This we shall make clear at sufficient length, and in what manner Sol, with the other planets, should be produced, namely, with the furnace and fire.

CHAPTER I.

Concerning the Building of the Furnace, with the Fire.

Mercurius Hermes Trismegistus says that he who perfects this Art creates a new world. For in the same way as God created the heaven and the earth, the furnace with its fire must be constructed and regulated, that is to say, in the following manner: First, let a furnace be built at a height of six palms, with the fingers and thumb extended, but in breadth only one palm; round within and plain, so that the coals may not adhere to it. At the bottom let a little mound be raised, sloping on all sides to the border. Let holes be left open underneath, four fingers in breadth, and to each hole let its own furnace be applied with a copper cauldron, which contains water. Then take the best and most lasting coals, and break them into lumps the size of a walnut. With these fill the long furnace, which must then be closed, so as not to burn out. Afterwards, add coals below, right up to the holes. If the fire is too great, put a stove before it: if too little, let the coals be stirred with an iron rod, that they may meet the air and the heat may be increased. In this way you will be able to regulate the fire, according to the true requirements of its nature, so that it shall not be excessive or defective, but adapted to the movement of the matter. This is compared to the firmament. And there is another firmament in this place, namely, the matter contained in the glass. After these things follows the form of the world. The furnace then is to be placed as the sun in the great world, which affords light, life, and heat to the whole furnace itself, and to all the instruments and other things which it encloses.

CHAPTER II.

Concerning the Conjunction of the Man with the Woman.

Since we have treated of the furnace in which the tinctures are to be prepared, and of the fire, we now propose to describe more at length how the

man and the woman meet and are joined together. This is the manner. Take Philosophers' Mercury, prepared and purified to its supreme degree. Dissolve this with its wife, that is to say, with quick mercury, so that the woman may dissolve the man, and the man may fix the woman. Then, just as the husband loves his wife and she her husband, the Philosophers' Mercury pursues the quick mercury with the most supreme love, and their nature is moved with the greatest affection towards us. So then each Mercury is blended with the other, as the woman with the man, and he with her, so far as the body is concerned, to such an extent that they have no difference, save as regards their powers and properties, seeing the man is fixed, but the woman volatile in the fire. For this reason, the woman is united to the man in such a way that she dissolves the man, and he fixes her and renders her constant in every consideration as a consequence. Conceal both in a glass vessel, thoroughly fastened, so that the woman may not escape or evaporate; otherwise the whole work will be reduced to nothing.

CHAPTER III.

Concerning the Copulation of the Man with the Woman, etc.

When you have placed the husband and the wife in the matrimonial bed, in order that he may operate upon her and impregnate her, and that the seed of the woman may be coagulated into a mass by the seed of the man, without which she can bring forth no fruit, it is necessary that the man should perform his operation on the woman.

CHAPTER IV.

Concerning the Philosophic Coition of the Husband with His Wife.

As soon as you see the woman take a black colour, know for a certainty that she has conceived and become pregnant: and when the seed of the man embraces the seed of the woman, this is the first sign and the key of this whole work and Art. Therefore preserve a continuous natural heat, and this blackness will appear and disappear through being consumed, as one worm eats another, and goes on consuming until not one is still left.

CHAPTER V.

Concerning the Black Colour.

As soon as the blackness appears and is manifest, it may be known that the woman has become impregnated. But when the peacock's tail begins to appear, that is, when many and various colours shall be seen in the glass, it is a sign that the Philosophers' Mercury is acting on the common mercury, and extending its wings until it shall have conquered. When, therefore, the dry acts on the moist these colours appear.

CHAPTER VI.

Concerning the Bud appearing in the Glass.

When you have seen the different colours, it is necessary that you persevere in the work, by constantly continuing the fire, until the peacock's tail is quite consumed, while the matter of Luna becomes white and glittering as snow, and the vessel attains its degree of perfection. Then at length you may break off a morsel of the regulus, and place it on a heated copper plate. If it remains firm and fixed there, and tinges it, then it is a fermentation brought to the highest perfection of Luna. That King has strength and power, not only for transmuting metals, but also for healing all infirmities. He is a King worthy to be praised, and adorned with many virtues, and so great power, that he transmutes Venus, Mars, Jupiter, Saturn, and Mercury into Luna, which will stand all tests. He also frees the bodies of men from an infinite number of diseases, as fevers, the falling sickness, leprosy, the gallic disease, and many mineral ailments which no herbs or roots, or anything of that kind, can remove. Whoever uses constantly this medicament, prepares for himself a fixed, long, and healthy life.

CHAPTER VII.

Concerning the Red Colour.

After the King has assumed his perfect whiteness, the fire must be continued perseveringly, until the whiteness takes a yellow tint, this being the colour which succeeds the white ; for so long as any heat acts on the white and dry matter, the longer such action lasts, the more is it tinted with yellow and saffron colour, until it arrives at redness, like the colour of a ruby. Then at last the fermentation is prepared for gold, and the oriental King is born, sitting in his seat, and powerful above all the princes of this world.

CHAPTER VIII.

Concerning Increase and Multiplication.

The multiplying of this fermentation should be noted, which is performed in the following manner. Let it be dissolved in its own moisture, and afterwards subjected to the regimen of fire as before. It will act on its own humidity more quickly than it previously did, and will transmute into its own substance, just as a little leaven seems to transmute into leaven the whole of a large quantity of flour. Wherefore it is an unspeakable treasure on the earth, of which the universe has not the equal, as Augurellus witnesses.

Conclusion.

This secret was accounted by the old Fathers who possessed it as among the most occult, lest it should get into the hands of wicked men, who by its aid would be able more abundantly to fulfil their own wickedness and crimes. We, therefore, ask you, whoever have attained to this gift of God, that, imitating

these Fathers, you will treat and preserve this divine mystery in the most secret manner possible, for if you tread it under foot, or scatter your pearls before swine, be sure that you will hear pronounced against you the severe sentence of God, the supreme avenger.

But to those who, by the special grace of God, abstain most from all vices, this Art will be more constantly and more fully revealed than to any others. For with a man of this kind more wisdom is found than with a thousand sons of the world, by whom this Art is in no way discovered.

Whoever shall have found this secret and gift of God, let him praise the most high God, the Father and Son, with the Holy Spirit. And from this God alone let him implore grace, by which he may be able to use that gift to God's glory and to the good of his fellow-man. The merciful God grant that this may be so for the sake of Jesus Christ His Son, and our Saviour!

HERE ENDS THE BOOK CONCERNING THE SPIRITS OF THE PLANETS.

THE ECONOMY OF MINERALS.*

ELSEWHERE CALLED THE GENEALOGY OF MINERALS.

PREFACE TO THE READER.

ALTHOUGH order seems to demand that we should have treated of the generation of minerals and metals before speaking of their transmutations: still, since theory cannot be more lucidly taught than by its practice, I have thought it best for those who study this art to begin from the very beginning. For, above all else, Alchemy is a subject which is not comprised in mere words, but only in elaborate facts; just as is the case with the rest of those arts, familiarity with which is gained rather by putting them in practice than by any mere demonstrations. It is true that these demonstrations do a very great deal for those who are some way advanced rather than for initiates. For these it is best that from the very first they should have a finger in the pie (as the saying is), and gradually learn from the very mistakes they make. Nobody ever acquired even the easiest art without making such blunders; and certainly no one will be able to follow up Alchemy without making mistakes before he gets at the truth. No one, again, will ever enter the true path so long as he holds back from the goal through fear of making a false step, or fails to correct his own errors by imitating the course of Nature. It will not be so easy to learn if we fail to compare alchemical with natural methods. So, then, it was thought well to let artificial Alchemy precede the natural, so that we may recall those who are venturing forth in this art to the genealogy of minerals, as if to a safe anchorage. It seemed opportune, nay, even necessary, to provide some such anchorage for this purpose in the case of those who are studying Alchemy.

CHAPTER I.

CONCERNING THE GENERATION OF MINERALS.

When I had most carefully read through the writings of the ancients concerning the generation of minerals, I found that they had not under-

* This treatise in the recension here chosen for translation is not found in the Geneva folio, and is translated from another collection of the works of Paracelsus, namely, the Frankfort 8vo. of 1584. A corresponding treatise, entitled *De Mineralibus*, which is included in the Geneva edition, goes over much the same ground, and is, indeed, in parts identical with that given in the text. But at the same time, it has differences sufficiently marked to require that both versions should be provided It will, accordingly, be found in an appendix at the end of this volume, under the title of A Book about Minerals.

stood the ultimate matter thereof, and, in consequence, much less did they understand the primal matter. If the beginning of any matter is to be described, its end should first of all be noted down. I therefore determined first of all to lay before you the ultimate matter of minerals, and from this you will easily understand the primal matter whence they derive their origin. We may bring forward an example from Medicine, where a disease has to be studied from its issue and not from its origin. Of this latter there is no knowledge, because it was secretly introduced, and he who observes it is virtually blind. But the end is visible from the issue towards which we see that disease tending, as though towards a mark set up for it to aim at. Now a thing cannot be better judged than by getting to know for what end it was created by God; otherwise it will often happen that the true use of this creation of God turns to its abuse. Whosoever, therefore, undertakes any work with anything ought thoroughly to understand that with which he works, so that he may accomplish his task in the order prescribed by God, lest on account of his imperfect knowledge or utter ignorance of the matter, things may turn out ill, and the devil's work rather than God's be done, through abuse of the matter and of appliances. For a rough example, take the case of an axe or club in the hand of a man who does not know how to use the one or the other. They become mere instruments of destruction. He alone should handle such tools who knows how to use them, and how, out of the material he has, to construct something that shall be to his neighbour's benefit, and preserve that material for the purpose for which God created it. On this account God wills that everything He has created should be possessed by one who knows how to use it; and every man ought to apply himself to that pursuit whereto he feels in his own conscience called, and not to learn some other fanciful thing suggested by the devil.

Know, then, that the ultimate and also the primal matter* of everything is fire. This is, as it were, the key that locks the chest. It is this which makes manifest whatever is hidden in anything. In this place, then, we understand by the ultimate matter of everything that into which it is dissolved by fire; so that among the three universal things which I have discussed elsewhere in different places, this should be regarded as the first and predominating one. You have an illustration in the case of a metal dissolved in the fire. It at once makes it clear that its first beginning was Mercurial Water, not Sulphur, since its resolution is not accompanied with flame, as would be the case with resins. It is also proved not to be Salt, because the first sign of its resolution is not a crumbling besides liquefaction and flame, as would be the case with earth and stones. Every metal, it is true, contains within itself Sulphur and Salt,

* I call the ultimate matter of anything that state in which the substance has reached its highest grade of exaltation and perfection, as, for example, gold, when it has been separated from all superfluities, foreign matter, etc., and remains in its pure virtue, without any admixture, has been educed into its ultimate matter.—*Chirurgia Magna*, Pt. II., Tract II., c. 11. For example, every body made from the first matter is compelled to metamorphose into the ultimate matter. Thus the great ultimate matter has its beginning in the end of the increase of the first matter.—*Ibid.*, Part III., Lib. III.

but Mercury holds the principal place therein. Now, it has seemed good to God to create water an element, and that from it should be every day produced minerals for the use of men. Thus it becomes the mother of those things which are developed in her, as it were in her matrix; that is to say, Mineral Fire, Salt, and Mercury are formed into metals, stones, and all mineral substance, albeit the offspring is quite unlike the mother. In this way the Most High has created all things with their own nature: the birds of the air for one purpose, which is different from that of the fishes in the sea. And so of the rest. Everything is to be committed to His divine will, Who makes everything as it is, and wills that what He makes shall be eternal. As, therefore, water is not like its metallic offspring, nor the son like the mother, in the same way the earth itself is, as it were, wood and not wood, because it comes from that same source. In the same way, stone and iron are produced from water, which, however, becomes such water as never before existed: and the earth, too, becomes something which in itself it is not. So also man must become that which he is not.*

In a word, whatever is to pass into its ultimate matter must become something different from what its origin was—varied and diverse, though from one mother. Thus God willed to be One in all, that is, to be the one primal and ultimate matter of all things. He is such, and so wonderful, an original artificer of all things as never has existed, nor will another ever exist. As, then, you have now heard so far concerning the mother of the minerals, we will in the sequel teach you more fully. The ancients have falsely written that this is the earth; but they have never been able to prove it.

CHAPTER II.

Concerning the Ultimate and Primal Matter of Minerals.

The first principle with God was the ultimate matter which He Himself made to be the primal, just as a fruit which produces another fruit. It has seed; and this seed ranks as primal matter. Likewise, out of the ultimate matter of minerals the primal element was made, that is, it was made into seed, which seed is the element of water. This resolves it, so that it becomes water. It has been entrusted to it by Nature, or so arranged that it should produce the ultimate matter, and this is in water. Nature, therefore, takes under its own power and separation whatever there is in water; and whatever relates to a metal it puts on one side by itself for each particular metal. So also for gems, stones, the magnet, and other things of that kind, each separately and according to its own kind. For as God has appointed to the wheat its proper time for harvest, and the autumntide for fruits, and to other things like these in their elements, so for the element of water He has

* It is needful for man to be born a second time from a virgin, not from a wife, by water and by the spirit. For the spirit vivifies that flesh wherein there is no death possible for ever. The flesh wherein death abides profits nothing, and nothing towards eternal salvation can it confer upon man.—*Philosophia Sagax*, Lib. II., c. 2.

willed that there shall be a proper season of harvest and autumntide ; and for all other things, each according to its kind, He has foreordained times for the collection of their fruits. So, then, the element of water is the mother, seed, and root of all minerals ; and the Archæus therein is he who disposes everything according to a definite order, so that each comes to its ultimate matter, which at length man receives as a sort of artificial primal matter : that is, where Nature ends, there the Art of man begins, for Nature's ultimate matter is man's primal matter. After such a wonderful method has God created water as the first matter of Nature, so soft and weak a substance, yet from it as a fruit the most solid metal, stones, etc.—the very hardest from the very softest:—and so that from the water fire should issue forth, beyond the grasp of man's intelligence, but not beyond the power of Nature. God has created wonderful offspring from that mother, as appears also in men ; if they be looked at even in their mother, each will be found peculiar in his intellect and his properties, not according to his body, but according to his own state of constitution.

CHAPTER III.

Concerning the Field, the Roots, and the Trees of Minerals.

The Most High created the element of water to be, as it were, a field in which the roots of mineral trees, springing forth from their seeds, should be fixed, and thence the trunk and the branches should be thrust forth over the earth. He separated it, therefore, from the other three, so that neither in the air, nor in the earth, nor in heaven, but placed on the lower globe, it should exist by itself as a free body, to be on the earth and to have its centre there where it was founded, created after such an admirable order that it should bear man upon it like the earth ; so that man borne in a ship should speed over the water and get possession of it. What is more marvellous still is that though it surrounds our globe in every direction, the water does not fall down from its own limits, though the part at our antipodes seems to hang downwards, just as our part seems to them, and yet each remains spread out a plane surface on its own sphere, wherever you look at it, as if some pit should be imagined which, descending perpendicularly to the abyss, should find no bottom nor be sustained by the earth. It is even more wonderful than the egg in its shell, provided with all that it requires. The generations of minerals, then, from the element of water are protruded into the earth, just as from the element of earth all fruits are pushed forward into the air, so that nothing but the root remains in the earth. Exactly so, all metals, salt, gems, stones, talc, marcasites, sulphurs, and every similar substance, pass from their mother, the water, to another mother, namely, the earth, in which the operation of their trees is perfected, while their roots are fixed in the water. For as those things which grow from roots in the earth are finished in the air, in like manner, those which derive their origin from the water are altogether completed by Nature in the earth, so that they reach, as the others did, their ultimate matter. The

ancients, led astray by this opinion, because they saw that metals were found in the earth, were so little advanced that they did not see their error when, on the subject of minerals, they wrote that out of the earth grew nothing but wood, leaves, flowers, fruits, and herbs, and that everything else was produced from water. No less mythical was the saying of that man who asserted that all things which were produced on the earth had their origin from the air, because they are in the air and are perfected there, though he saw their roots in the earth. Because he did not see the roots of minerals with his bodily eyes he would even feign that they are fixed in the earth. Such is the physical science of the Greeks, deduced only from what is seen, recognising nothing occult by mental experiment. It is just a fiction of lazy men who presume to chatter about natural science from eyesight alone; and who do not experiment so as to observe those occult things which underlie the things which are manifest, the one over against the other.

CHAPTER IV.

Concerning the Fruits and the Harvest of Minerals.

Just as all the fruits of the earth have their harvest and autumn on the earth and in the air, according to the predestined time in their generation, so the fruits of the water, that is to say, minerals, are gathered at their own time of maturity. When the mineral root first germinates they rise to their own trunk and tree, that is, into the body from which minerals or metals are subsequently produced; just as a nut or a cherry is not immediately produced from the earth, but first of all a tree, from which at length the fruit is generated. In like manner, Nature puts forth a mineral tree, that is, an aqueous body, in the element of water. This tree is produced in the earth so far as it fills the pores thereof, just in the same way as the earth itself fills the air. From this are eventually produced fruits according to the nature and property of its species, at the extremities of its branches, just as occurs in trees which we see on the surface of the earth. We must seek, then, first of all, for the aqueous tree, and by-and-by for its fruits, by a method not inaptly borrowed from agriculture, and in the following manner. Some of the visible trees produce their fruits covered up; for instance, chestnuts under a prickly bark, walnuts under one that is green and bitter, under that a wooden covering, and under this again a bitter membrane, and then at last the kernel. So it happens in minerals, the kernels of which, that is to say, the metals, are separated just like those others by barks. Other trees produce their fruits naked, such as plums, cherries, pears, apples, grapes, etc., where there is no such separation as that just described. So also some aqueous trees produce their gold, silver, corals, and other metals of that kind, free and naked, according to the condition and nature of the water. As we know by the rind what fruit lies concealed within it, and as the spirit is known by its body, just so, in the case of minerals, the spirit of the metal is recognised, though hidden,

beneath its corporeal or mineral bark. The spirit of the aqueous element produces the body, of one kind in the mineral, of a different kind in the fruit. Although, then, gold may be in a mineral body, nevertheless that body is of no moment ; it has to be separated from the gold as impure, while the gold itself is pure. There are, therefore, in a mineral two bodies, of which one is the fruit, the pure body of gold, wherewith its spirit is inseparably incorporated. So the fruits are first introduced from the element into the tree, as the spirit into an impure body, and with that at last into the earth, as something noble and pure. The same thing is seen in man, to whom have been given two bodies, one corrupt, but the other incorrupt, which will be eternally united with him, since it is the image of God, and by its possession especially man differs from all other creatures.*

CHAPTER V.

Concerning the Death of the Elements, especially of Water.

Elements die, as men die, on account of the corruption in them. As water at its death, as it were, consumes and devours its own fruit, so does the earth its own fruits. Whatever is born from it returns to it again, is swallowed up and lost, just as the time past is swallowed up by yesterday's days and nights, the light or darkness of which we shall never see again. It is no weightier to-day than yesterday, not even by a single grain, and will after a thousand years be of the same weight still. As it gives forth, so, in the same degree, it consumes. The death of the water, however, is in its own proper element, in that great terminus and centre of water, the sea, wherein the rivers, and whatever else flows into it, die and are consumed as wood in the fire. Rivers, indeed, are not the element of water, but the fruit of that element, which is the sea ; from this they derive their origin, and in this they receive both their life and their death.

CHAPTER VI.

Concerning the Death of the Tree of Minerals.

After Nature has planted the mineral root of a tree in the centre of its matrix, whether to produce a metal, a stone, a gem, salt, alum, vitriol, a saline or sweet, cold or hot spring, a coral, or a marcasite, and after it has thrust forth the trunk to the earth, this trunk spreads abroad in different branches,

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* The flesh and blood which man received from Adam can in no wise enter into the kingdom of God. For nothing can ascend into heaven which did not come forth out of heaven. Now the Adamic flesh is earth. Thus it cannot enter heaven, but is again converted into earth. It is mortal, subject to death, and nothing mortal can enter heaven. There is no fire which can purge it from its stains in such wise as to make it fit for heaven. It admits not of purging or glorifying. At the same time, man cannot enter heaven unless he be true man, clothed upon with flesh and blood. For it is only by flesh and blood that man is distinguished from the angels, for, otherwise, both are of the same essence. Herein man hath more than the angels, in that he is endowed with flesh and blood, and for man was the Son of God born into the world ; for him He died upon the cross, that so man might be redeemed and made eligible for the kingdom of heaven. But when God had thus shewn His love for man, his flesh still excluded him from heaven, whence He gave him another flesh and blood which was built up of the Son, and then this creature, not of the Father, but the Son, enters heaven. For the Adamic flesh is of the Father, and returns whence it came, though had Adam not sinned his body would have remained immortal in Paradise. But Christ, compassionating our calamity, gave us a new body. Of the spirit who

the liquid of whose substance—both of branches and stalk—is formally neither a water, nor an oil, nor a lute, nor a mucilage; in fact, it can only be conceived as wood growing out of the earth, which is, nevertheless, not earth, though sprung therefrom. They are spread in such a manner that one branch is separated from another by an interval of two or three climates and as many regions: sometimes from Germany to Hungary, and even beyond. The branches of the different trees of the same kind are extended over the whole sphere of the earth, just as the veins in the human body are extended into various limbs far apart from each other. But the fruits put forth by the extremities of the twigs, by the nature of the ultimate matter, soon fall to the earth. There is a momentary coagulation of them, and then at length, when all its fruit is shed, this tree dies and is utterly consumed by dryness, its offspring being left in the earth. Afterwards, according to its state of nature, a new tree appears. So, then, the first matter of minerals consists of water; and it comprises only Sulphur, Salt, and Mercury. These minerals are that element's spirit and soul, containing in themselves all minerals, metals, gems, salts, and other things of that kind, like different seeds in a bag. These being poured into water, Nature then directs every seed to its peculiar and final fruit, incessantly disposing them according to their species and genera. These and like things proceed from that true physical science, and those fountains of sound philosophy from which, through meditative contemplation of the works of God, arises the most intimate knowledge of the Supreme Creator and of His virtues. To the minds and mental sight of true philosophers, no less than to their carnal eyes, the clear light appears. To them the occult becomes manifest. But that Greek Satan has sown in the philosophic field of true wisdom, tares and his own false seed, to wit, Aristoteles, Albertus, Avicenna, Rhasis, and that kind of men, enemies of the light of God and of Nature, who have perverted the whole of physical science, since the time when they transmuted the name of Sophia into Philosophy.*

CHAPTER VII.

Concerning the Variation of the Primal Matter of Minerals, in proportion to the different species and individuals thereof: also concerning the various colours, etc.

We have before said that the primal matter exists in its mother, just as if in a bag, and that it is composed of three ingredients meeting in one.

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gives life cometh forth a living flesh, wherein is no death but life. This is the flesh whereof man has need, that he may become a new man, and in this flesh and in that blood, at the last day, shall he arise, and shall possess the kingdom of heaven with Christ. Now, this flesh which has its life from the spirit was first born, without the generation of male seed, from a daughter of Abraham, by promise, and became man by the Holy Ghost. So, also, we who aspire to the kingdom must be born again out of a virgin and faith, incarnated by the Holy Spirit. Thus man must to eternity be flesh and blood; thus is there a dual flesh—that which is Adamic and is nothing, and that of the Holy Spirit which is vivific.—*Philosophia Sagax*, Lib. II., c. 2.

* So high and so lofty is human wisdom that it hath in its power all the stars, the firmament itself, and universal heaven. And as the power thereof pervades all the earth, so also it extends over heaven. The Sun and Moon are its subjects. Even as the hand changes and compels the soil, so also the inner microcosmus compels the zenith to obedience.—*De Peste*, Lib. II., c. 2.

But there are as many varieties of Mercury, Salt, and Sulphur as there are different fruits in minerals. For a different Sulphur is found in lead, iron, gold; in sapphire, and other gems; in stones, marcasites, and salts; likewise a different Salt in metals, salts, etc. So, too, is it with Mercury: one kind exists in gems, another in metals. Besides, in respect of the composition of these, different individuals are found under the same species. Gold is sometimes found, one specimen heavier or more deeply coloured than another: and so of the rest. Moreover, there are as many Sulphurs of gold, Salts, and diversities of Mercury of gold, and of the others, as there are greater and lesser degrees. Nevertheless, all which among them receives particularity from the subject always is comprised under the universality of one and the same Sulphur, Salt, and Mercury, mysteriously comprehended in universal Nature. In this respect Nature may be compared parabolically to a painter, who from some few colours paints an infinite number of pictures, no one exactly like another. The only difference is, that Nature produces living pictures, but the artist only imitates these. He represents the same things to the eye; but they are dead things. Now, all natural colours proceed from the Salt of Nature, in which they exist together with the balsam of things and coagulation. Sulphur exhibits the substance of bodies and their building up; Mercury, their virtues and arcana. God alone assigns life to all, so that from every one should be produced that which He, from all eternity, had predestinated to be thence produced, as He determined and willed that all should be. Whoever, therefore, wishes to understand the bodies of natural things, let him learn from natural Sulphur that which he may first of all have well understood, if he seeks natural colours as the foundation from Salt. But if he wishes to know the virtues of things, he must scrutinise the arcana belonging to the Mercury of that thing whose virtues he wishes to learn. All these matters does that one and the same Nature at once embrace in one, and separate; at the same time distributing, removing, or completely blotting out the colours from such. Consider, I beseech you, this tiny grain of seed, black or brown in colour, out of which grows a vast tree, producing such wonderful greenness in its leaves, such variegated colours in its flowers, and flavours in its fruits of such infinite variety; see this repeated by Nature in all her products, and you will find her so marvellous, so rich, in her mysteries that you will have enough to last you all your life in this book of Nature without referring to paper books. If God, then, shews Himself to our discernment in Nature so powerful and so wise, how much more glorious will He reveal Himself by His Holy Spirit to our mind if we only seek Him? This is the way of safety which leads from below to above. This is to walk in the ways of the Lord, to be occupied in admiring His works, and to carry out His will, so far as is in us, or as it should and can be in us. This has been my Academia, not Athens, Paris, or Toulouse. After I had read many deceitful books of wise men I betook myself to this one alone, from which I learnt all that I write, which also I know to be true. Still, I confess, there are many more things which I do not know, but which will surge up to

the surface in God's own time. There is nothing so occult which shall not be revealed when the Almighty wills it so to be.

This, however, I know, that after me will come a disciple of this school, one who does not yet live, but who will disclose many things.

CHAPTER VIII.

Concerning the Natural Dispenser of Minerals, and His Ministers.

In the manufacture of minerals by men for preparing them and adapting them for use, not one man alone, but many in succession, are required, and each of these has his own special gift and duty. Who is benefitted by a metal being dug from the bowels of the earth, unless it be its separator, preparer, or liquefactor? What is he, again, without the smith? He, too, is of no avail without some buyer, nor the buyer unless there be someone who knows how to adapt those metals for use. Nature does not need all these; but still she needs her own people. Among these is, first of all, Archeus, the dispenser of minerals, who has ministers under him.* He himself, the minister of Nature, has the following: the first, who exhibits the corporeal matter into which the operation falls, namely, the mineral Sulphur, is this or that condition and nature; a second, who fabricates the properties and virtues, and operates on the previously existing matter, say, for instance, Mercury; a third, who, by compaction and coagulation, unites all the single portions together into one body, that is to say, the Salt, which is the confirmer of the work. When all these are brought together into one, and enclosed in an athanor, Archeus decocts them, exactly as the seed in the earth; and not only so, but they are decocted mutually together, one with the other, in the following manner: The Sulphur submits its body to the other two, that they may do with it what they will, and lead to that end whereto is destined that which has to be done. Mercury is added with the properties of its virtues, and this is decocted by the other two. When all the decoctions of this kind are fulfilled, then, at length, the salt begins to operate on the other matters associated with it, and on itself. By first condensing, afterwards congealing, and, lastly, coagulating, it strengthens the work for its autumn and harvest, so that nothing is wanting except a harvester and a smith.

Briefly, then, we have gone through the whole genealogy of minerals. It remains that we specially, but still concisely, hear the force and virtue of each in Alchemy and in Medicine respectively, so far as it is necessary to learn these for the aforesaid faculties. I would admonish my readers to put aside for awhile the mere dreams and opinions of others who romance about these things, until they see that they are only philosophers on paper, not in Nature, who have been taught by men like themselves, and with the same amount of

* Archeus is Nature and the dispenser of things.—*Annotationes in Libros duos de Tartaro.* The anatomy of the Archeus is the anatomy of life.—*Fragmenta Anatomiæ.* Archeus is the separator of the elements and of all those things which exist in them, dividing each thing from the rest, and gathering it into its own place.—*De Elemento Aquæ*, Tract II., c. 1.

learning, to think by rote and not by experience, while they shew themselves to others such as they really are. Though they may not care to see, I will still place them so that at least they may perceive the light and nature and life more easily, without being disturbed through the darkness of death. Beginning, then, from the first principles of minerals, which are Salts, we will run through each, that is to say, right up to the very end of the metals.

CHAPTER IX.

Concerning the Virtues and Properties of Salts in Alchemy and in Medicine.

God, in His goodness and greatness, willed that man should be led by Nature to such a state of necessity as to be unable to live naturally without natural Salt. Hence its necessity in all foods. Salt is the balsam of Nature,* which drives away the corruption of the warm Sulphur with the moist Mercury, out of which two ingredients man is by Nature compacted. Now, since it is necessary that these prime constituents should be nourished with something like themselves, it follows as a matter of course that man must use ardent foods for the sustenance of his internal Sulphur; moist foods for nourishing the Mercury, and salted foods for keeping the Salt in a faculty for building up the body. Its power for conservation is chiefly seen in the fact that it keeps dead flesh for a very long time from decay; hence it is easy to guess that it will still more preserve living flesh. Coming, at length, to its kinds, there are three which are considered specially useful for man's life. The first of these is Marine Salt, the second is Spring Salt, and the third Mineral Salt. Spring Salt is chiefly conducive to health; in the second place, Mineral Salt; and, lastly, Marine Salt. This last and the first are decocted by Art, the other only by Nature. This and the Marine Salt are not comprised under the nature of muria (brine), but that which is decocted is first of all turned thereinto, before it is separated from the water into coagulated salt. There are, therefore, two descriptions of Salt to be put forward by us, one from muria, the other from wholly refined salt. But, first, consideration should be given to that condition which is common to every Salt. Where Salt has not been used with foods there is no correction; and if the stomach receives those foods it is unable to digest them. There is in Salt an expulsive force, acting through the excrement or through the urine, and unless these are kept in their regular course and motion, all the vital faculties are prostrated in their endeavours

* White vitriol, red vitriol, cuprine vitriol, rock alum, alumen plumosum, alumen scissum, alumen entali, alumen usnetum, sal gemmæ, rock salt, mountain salt, sea salt, spring salt—all these species originate from the salt of the three prime principles, and are subject to calcination, reverberation, or sublimation. Now, if all these things subsist in a proper proportion or, so to speak, essence, they are called by one universal name, liquor of Nature, or liquor of salt, or balsam of salt. Besides these, there are arsenic, realgar, ogertum, black auripigment (that is, orpiment), antimony, mercury, asphalt. These, in like manner, are subject to calcination, reverberation, distillation, etc., and if they subsist wholly in one essence they are called the balsam of Nature, the liquor of Mercury, or the balsam of Mercury. Finally, there are the various species of sulphur, petroleum, carabe, pitch, etc., which are also subject to the same processes, and if they subsist unseparated in a single essence they are called the tincture of Nature, liquor of sulphur, or balsam of sulphur.—*Fragmenta Medica*, No. 3.

and in their powers of expulsion. The blood is in its own nature salt, and does not receive unsalted nutriment. If it does, through extreme hunger, sometimes receive such, it passes away to decay. In order that such a fault might be avoided, Salt has been appointed as an addition to alimentary foods, so that the natural outlets may not be obstructed, or the members be deprived of their due nutriment. Moreover, there lies hid in Salt a solvent faculty for opening the obstructions which accidentally occur in the pores of the skin, and driving them out by resolving them into urine. The urine is only the salt of the blood, that is, the salt from the natural salt which is associated with the microcosmic salt, and so they both act powerfully for the expulsion of the excrements. Now, this natural conjunction can only be made when tempered with a proper quantity of alimentary salt, otherwise through the stoppage they easily remain and adhere somewhere. Every physician ought to know the power there is in Salt as a medicine, especially when he wishes to purge the natural Salt. Let him more freely prescribe this, especially the kind that comes from gems, which, above all others, has the faculty of attacking and expelling this natural Salt. The operations of these three different kinds of Salt should be carefully watched in practice, a method which opens the eyes far better than any letter or description.

CHAPTER X.

Concerning Muria.

I just now mentioned two kinds of Salt, Muria and dry Salt. First of all, Muria has the greatest power of drying up all superfluous moisture. It does more in one hour than dry Salt could effect in a month. Although this has been reduced to Muria, it has not the same power as the natural in curing moist gout, dropsy, moist tumours of the tibia, and other tumours as well, in a word, for consuming all unnatural leprous liquids. Its heat should be so tempered that a patient could sit in it as in a bath without injury. The proof of perfection in Muria is that an egg shall swim on its surface when thrown into it. It should be noticed that a bath of this kind is only adapted for stout people. People who are of a spare habit should not use it, as it dries up too much. If after one or two baths the tumours return, it would be best to live for a time in those places where the decoctions of Muriæ and Salt are made.

CHAPTER XI.

Concerning Dry Salt.

There are various species of dry Salts, such as the common sort used with food, that from gems, stones, and earths, and that which comes through the cones of congelated bodies. Note the common virtue of each. If any one of them be mixed with Sulphur and applied to wounds as a plaster, and then as a lotion, it keeps them from worms, and even if the worms have already been produced, it drives them away and prevents any more from coming. By

cleansing alone, and without the use of any medicament, Nature heals wounds, unless any complication prove an obstacle to the free action of the natural balsam. In Salts of this kind is a great remedy for ulcers, scabies, and the like, if they are resolved in baths. The power of Muria is much stronger, and this can be increased by dissolving Salt in it. The same is useful for curing baldness, and other ailments of that kind, especially if these Salts are corrected by addition, or increased in power by the following method: Take equal quantities of dry Salt and Salt of Urine,* as much as you will, let them be calcined together for two hours, and let Muria afterwards be dissolved; or let them be put by themselves in a cold, damp place. They will exhibit artificial Muria very little less strong than the natural in external surgical cases, but much weaker in internal cures. The aforesaid Salts will never be found in any other things, even though the alcali be decocted from them. This Salt is not like those before named, but is called the alcali of natural things or Corporeal Salt, because it is fed by the salts of nutriment in the human body, or by the preceding, even the dry and specially nutritive ones. For Alchemy, the Water of Salt is made from the same kind of Salts calcined into a spirit in a vessel where gold is dissolved into an oil and separated from it so that it remains excellent and potable—Drinkable Gold. Before it arrives at this final condition, as we have heard from jewellers and ironmasters, it is an excellent artifice for gilding silver or iron, and would be a constant treasure if they only knew how to prepare it chemically. It should be remarked, too, concerning pure Salt, congelated by Nature alone either into cones or into the salt of a gem, that this is particularly adapted for the ordinary cementations of silver, and renders the metal malleable without the customary burnings. It does the same with copper by means of a cement reduced to a regulus.

CHAPTER XII.

Concerning Salt Nitre.

There is also another kind of salt which is called nitre.† It is composed naturally of the natural salt of animals' bodies, and the salt of nutriment in those bodies combined. One salt having thus been formed from two, the superfluity is decocted into urine, and, falling on the earth, is again decocted in due course. The two constituents are more and more closely united, so that from them results one single and perfect salt through the chemical separation brought about by artificial decoction from its earth. It shews itself very clearly in the form of cones or of clods, provided it be thoroughly separated from the superfluous nutrimental Salt not yet digested by the animal decoction

* Every urine is a resolved salt.—*De Judicio Urinarum*, Lib. II. Salt passes into urine.—*De Tartaro*, Lib. I., Tract III., c. 1, *expositio*.

† Nitre forms in the pens and stables where cattle make water. For the earth whereon they make water is afterwards cooked and the salt nitre obtained from it. For all urine is salt.—*De Tartaro*, Lib. I., Tract III., *annotationes in* c. 2. Nitre is excrement and the dead body of esile and nutrimental matter. And this dead body is that out of which putrefaction grows.—*Fragmenta Medica, De Tararo Nitreo*. It is an essential spirit and excrement of all salts, possessing a hermaphroditic nature.—*De Pestilitate*, Tract I.

when it is driven off into the urine. In Alchemy its use is very frequent. It would be idle to recount how great was the violence which a first experiment demonstrated therein with disastrous result, when it was compounded with sulphur and formed into blasting powder, whence it has been deservedly called terrestrial lightning. In the same way, from the salt of the liquor of the earth, which is an universal natural balsam, by which all things are built up in their special combinations, returning at length from this by resolution into the earth again—there is produced, as was stated above, a single salt, which afterwards percolating through the pores of the earth is coagulated in the form of cones of ice adhering to the rocks, from which circumstance it changed its name of Nitre into Saltpetre. Neither the one nor the other is particularly useful as an internal medicine, except in the way of reducing too obese bodies; nor is it a very safe remedy, unless the two are mixed with Salt of Copper, or else the three are subjected to a process of extraction, and formed into one body for employment in this special way.

CHAPTER XIII.

Concerning the Ill Effects of Nutrimental Salt.

All salt used with food which has not been digested by the stomach, which also on being expelled has passed down into the intestine, unless it makes a thorough transit, generates colic and suffering in the bowels which are very difficult to cure. Its corrosive nature causes it sometimes to perforate the intestines, as is shewn by anatomy. If, however, it remains unexpelled in the stomach, eructations and heartburns arise, with many other affections of the stomach. It sometimes happens, too, that the undigested Salt is coagulated in the mesaraic veins, forming a granular deposit, from which proceed many severe diseases which are little understood, and that not only in this particular part of the body but in others also, especially the urinary organs. Enough has been said on the different species of salts, their virtues and their faults. We now pass on to that salt which is more mineral in its character, and is named Vitriol. It excels all others by its utility, both in Alchemy and in Medicine.

CHAPTER XIV.

Concerning Vitriol.*

Nature produces from the bowels of the earth a certain kind of salt, named Vitriol, possessed of such virtues and powers as can scarcely be described to the full by any. In it are contained perfect cures for the jaundice, gravel, calculus,

* An important variation of this and the following chapters on vitriol occurs in the Geneva folio. Concerning the use of vitriolated oil in Alchemy; and in like manner concerning its crude form. By way of saying something about the hidden alchemical powers in Vitriol, I would first of all submit to you, concerning crude vitriol, that each separate kind of crude vitriol makes copper out of iron. It is not the Alchemist who does this, but Nature or Vitriol by the operation of the Alchemist. In the light of Nature it is the subject of no small wonder to observe how any metal, as it were, puts off itself and becomes something else. It is really very much the same as if a woman should be produced from a man. In these matters, however, Nature has her own peculiar privileges conferred upon her by God, for the benefit of

fevers, worms, the falling sickness, and many other diseases which are very difficult to treat, and arising from obstructions, as we shall describe at greater length below. In both faculties, that is to say, in Medicine and in Alchemy, it produces marvellous effects, varying according to the method of its preparation. As from one log of wood different images are carved, so from this body various most excellent medicines are prepared, not only for internal disorders but also for surgical cases, such as ringworm and leprosy. In a word, whatever other remedies are not able to effect against diseases, on account of their own weakness, this it does from the very foundation by removing the cause of the disease. Some of its powers it puts forth in a crude state, others when it is reduced to water, others when it is calcined, others when it is reduced to a green oil, others in the form of a red oil; others, again, it possesses when in the form of a white oil. It assumes new powers with every fresh form of preparation which it receives. It can serve for a fourth part of all the diseases and all the drugs ever thought of. There is no need for the true physician to turn his eyes hither and thither. Like a modest maid, he can keep them fixed on the ground, for there, beneath his feet, he will find more power and wealth in this treasure of Nature than India, Egypt, Barbary, and Greece could bring him.

CHAPTER XV.

Concerning the Species of Vitriol and the Tests of it.

The species of Vitriol are as varied as the mines or sources from which it is extracted. The tests of its greater or less excellence vary in equal proportion. First, if it tinges an iron plate to the colour of copper, the more deeply it does so, the better it is considered. But this is the highest of all kinds. Secondly, when it is taken internally in a crude form it drives out intestinal worms better than any other medicine, and the more effectually it does this the better it is

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man. I say this concerning transmutation in order to make you understand how that envious philosopher, Aristotle, in his philosophy, has no sure foundation, but is simply fatuous. I will lay before you, in due course, the recipe itself, so that in all parts of the German nation you may know how to make copper out of iron. From this power of transmutation we can easily gather that many other transmutations are possible, though they are at present unknown to us. It cannot be denied that many arts are still occult, and that these are not revealed by God because we are not worthy of knowing them. Of course the change of iron into copper is not of the same importance as the change of iron into gold. God manifests the lesser, but the greater is kept occult until the time of knowledge and of Elias who is to come. For these arts are not without their Elias. The following is the recipe for transmutation: Take raspings or filings of iron, without any other metal, such as copper, tin, etc., one pound; add quicksilver, half a pound. Put both into an iron pan or pot; pour over them one measure of acetum and a quarter of a pound of vitriol, with one ounce and a half of sal armoniac. Let these be boiled together and constantly well stirred with wood. If the acetum he expended, pour in some more and add fresh vitriol. By this decoction the iron is transmuted into copper. If the copper is made it all passes away to the quicksilver. Having continued the decoction for ten or twelve hours, then separate as much of the quicksilver as is left from the iron, and wash it carefully so that it may he quite clean. Receive the quicksilver in a bag made of soft leather or cotton and squeeze it out. Then you will see an amalgam left. Let that amalgam expend itself, and you will find pure and good copper. Of this copper take half an ounce and the same quantity of silver. Let them pass into a state of flux or liquefaction, and the silver will forthwith ascend to the sixteenth degree. And this is the method of proving that such copper is made from iron. It is not, however, true that the grades are fixed. But whoever can work well with regale will he abundantly rewarded. Everything in this operation depends on skill in working. This is where most operators fail. By the above-mentioned process you can always make copper out of iron. I mention this to confirm the transmutation of one body into another. The nature of vitriol is such that if its colcothar be calcined it is at once, even with slight liquefaction, turned into copper. A remarkable cuprine nature is in it, and there is also an equally remarkable vitriolic nature in copper. If the copper he dissolved in aqua fortis and granulated, all the copper becomes vitriol. There is no more copper left. So, also, copper is made out of vitriol, and no more vitriol

considered to be as a medicine. A third test is when it transmutes iron into copper. The more perfectly and the more rapidly it does this, the better should it be esteemed in both faculties, for there is the greatest affinity between these two metals. Nor is this remarkable when by means of borax water quicksilver is made in like manner from lead. There are other kinds of cachimiæ which convert metals; and besides these there is a fountain in Hungary, or rather a torrent, which derives its origin from Vitriol, nay, its whole substance is Vitriol, and any iron thrown into it is at once consumed and turned to rust, while this rust is immediately reduced to the best and most permanent copper, by means of fire and bellows. A fourth test is when its red colcothar, subjected to a strong fire, exhibits copper of itself. This is comparatively weak in Medicine, but of great excellence in Alchemy. We must not omit to speak of its colours. That which is altogether cœrulean is not so strong in medicine as that which under the same colour has red and yellow spots mixed together. That which is of a pale sky blue colour should be selected before all others for the preparof the green and the white oil. That which inclines to a red or dark yellow colour is best for preparing the red oil from it. The last test is when with gall nuts it makes a very black and dark ink. This should be selected in preference to all the others. The species, therefore, are reckoned according to the tests.

CHAPTER XVI.

Concerning the Virtues of Vitriol, Crude or Calcined, in Medicine.

For the most severe pains in the stomach and discomforts arising from the inordinate use of food or drink, exhibit crude Vitriol to the extent of six cometz or three drops, say, three grains. To weak patients it should be administered in wine or in water, to stronger ones in distilled wine. It purges

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remains, unless it be reconverted into vitriol by a sufficient quantity of aquafortis. This kind of kinship between vitriol and copper is remarkable. Whatever is of the nature of copper gives good vitriol. Thus verdigris gives good and highly graduated blue vitriol. Although for us to discuss these matters at any length would perhaps be ridiculous, still none can deny that there is latent in vitriol a tincture, which is of much higher excellence than most people imagine. Happy he who understands this matter! Note other facts about the oil of vitriol. If the oil of quicksilver and this oil of vitriol be joined and thus coagulated according to their own special process, a sapphire of marvellous nature and condition is produced. It is not, indeed, the sapphire stone, but like it, with a wonderful tinge, concerning which I have much more to say. Hence it is evident that stupendous secrets lie hidden in Nature and in the different creations of Nature or of God; and it would be much more to our credit if we looked into these and investigated them, instead of indulging in revelry and debauchery. At present the palm is given to debauchery, until one-third part of mankind or of the population of the world shall be killed, another shall be finished off by disease, and the remaining third only shall be saved and survive. In the present condition of depravity the world cannot last or the arts flourish. It must needs be that the present condition and order of things go to destruction and be altogether eliminated, otherwise no good thing can be compassed. Then at last will flourish the Golden Age: that is, then at last man will use his intelligence and live as a man, not as a brute; nor will he act the swine, or live in caves and dens of the earth. Since, then, I have so far communicated to you these facts about vitriol, with every good disposition, I now pray you all, that when you see those unlucky and unhappy creatures suffering from critical disease, for the sake of your own conscience, for God's glory, and the love of your neighbour, you will seriously reflect and not despise or lightly esteem the gifts implanted by God in vitriol. Let love constrain you, so that by night and by day you may be occupied herein, and none be found taking his ease, but all ready to do anything for his neighbour's good. Will this not move you lawyers? Listen to what Christ says: "Woe unto you, lawyers!" This saying is not effete. Nor do you theologians place a stumbling block in the way, you who think so much more of your returns and your salaries than about your sick folk. These are they who pass by on the Jericho road. Be you like the Good Samaritan, and follow the example of his virtue. Then God will so enlarge your gifts that in helping the sick you shall suffer no lack. All that you need shall be given you. You only sell this treasure!

out every failing from the roots, driving it up and down. In arcana it is called Vitriol Grillus, or Grilla. Neither hellebore, nor colocynth, nor digridion purge so strongly or cure so perfectly as this, nor have they the same faculty for driving out worms. For curing the falling sickness, too, the purgation by Vitriol is of all methods the best. These properties accrue to it from its twofold nature, that is to say, its acetosity and its saltness. On this account it is a much nobler medicine than others. Its colcothar, or, as they call it, its red *Caput Mortuum*, should not be taken internally, unless as an adjunct to surgical treatment for putrid ulcers of the first grade of malignity ; but its oil may be taken for those of the second or third grade. Its medicinal virtues are contained in other medical books, as, for instance, in the treatise entitled *De Naturalibus Rebus*. Here we had intended only to treat and to bring to one focus what it does for Alchemy in the way of transmutation. Sometimes medical topics tempt one to stray from one's set purpose. Let us see, then, what Vitriol does in Alchemy beyond the transmutation of iron into copper, as we described above, giving the formula at the outset. Although, then, it is not so difficult a work to transmute iron into gold, God wills that the lesser operations shall be performed first, and that the greater ones should remain occult until the Elias of the Art arrives. All arts have some one person specially their own, as is understood in other arts. Now, take one pound of iron filing, without the admixture of any other metal, and half-a-pound of Mercury. Over these pour one measure of the strongest Acetum, with a quarter of a pound of Vitriol. Throw in an ounce and a half of Sal Armoniac. Boil all together, and stir constantly with a wooden spoon. As the Acetum wastes pour on fresh, and also Vitriol. After twelve hours let the chief part of the Iron which has been transmuted be entirely separated with Mercury from the other part of the Iron which has not been transmuted ; and when the Mercury has been pressed out by a leather, there will remain a paste of amalgam, and when this is reduced by fire it exhibits the purest copper. Half an ounce of this is at once mixed with an equal part of silver, six degrees being held back, though not fixed but ready to be fixed in *regale*, so that therefrom the industrious Artist may have moderate gain for food and clothing. Vitriol is also made from Venus, dissolved by means of aquafortis and granulated. This does not return again to copper. So also from the colcothar of vitriol Venus is made (as we have mentioned above among the tests), which is not brought back to vitriol of itself except by a special water. Verdigris, in like manner, exhibits a Spagyric Vitriol of highest degree. In Vitriol so great and powerful a tincture lurks as an inexperienced person could scarcely believe, though he can who understands its arcana. As often as Oil of Vitriol is mixed with Oil of Mercury, and both are coagulated together, they change to a stone of wonderful tint and condition, very like a sapphire.

Having dealt with the Salts, let us now pass on to Sulphur.

CHAPTER XVII.

Concerning the Threefold Sulphur of Minerals.

Sulphur should properly be called the resin of the earth, and in it are latent numberless virtues available in both faculties, though its crude form is useful in neither. Its arcanum alone, when cleansed from impurities, operates in a wonderful way, having been washed to that whiteness which is seen in snow, by means of the Isopic art. It has as many different virtues as it has variety of sources: for every metal or mineral contains Sulphur in itself. As we said above, under the similitude of chestnuts and other nuts, that minerals were likewise enclosed in their rinds, and that the chief excellence lay concealed in their nucleus, which is sustained and nourished by the external integuments, so with regard to Sulphurs, it must be understood that it is the interior one which excels the others, and is Spagyrically termed embryonated, on account of its specific origin, as being the Sulphur of gold, stone, etc. The external Sulphur, in which the embryonated lies concealed, is our mineral. There is also a third kind, extracted from the nuclei of minerals or of metals, which cannot have a better name in the art than "animated" and "Spagyric." It is of universal application in both faculties. In order to better comprehension, the first Sulphur, which we have said to be a resin of the earth, as it were, the mother and the father of other sulphurs, we name universal. The second kind is where it assumes a metallic or mineral appearance, but it is now embryonated; the third, which is repurged from these and exists Spagyrically pure from all superfluities, is Animated Sulphur. There are two conditions of this embryonated Sulphur which are worthy of notice. One, passing from the fixed stage, is made volatile; the other is a pure and living fire which destroys with equal facility a log of wood or a disease. The extraction of the embryonated Sulphur is brought about either by sublimation or by descent. But sometimes it is not found mixed naturally with other ingredients, so that being unable through its great subtlety to stand the heat of the fire in preparations of this kind, it has to be extracted from its minerals by means of aqua-fortis, and afterwards coagulated. This, when set aside according to its true concordance, contains within itself a golden nature, on which account it is to be sought before all others in Alchemy, because it easily admits of fixation, nay, it fixes the gold in cements, and in other metals where it is not yet mature or volatile. But gold is vainly sought therefrom unless it shall have previously existed there by Nature. It contains no silver, but only gold, one containing more than another, as in the embryonate of Venus, of red talc, of gold or iron marcasite, these rarely lack gold. Now, whoever wishes to turn his hand to these things, let him first of all remember and carefully note to separate Sulphur of this kind from gold with the greatest activity, and cleverly withal, so that nothing shall perish with the gold. I could say more than this, but I must be silent. If it were not diametrically to oppose the will of God, it would be the easiest thing possible to make all rich alike by a very

few words, and to fulfil the wishes of everybody. But since riches altogether lead aside the poor from the right path, taking away humility and piety, and putting pride and self-sufficiency in their place, together with petulance and incontinence, one would rather hold one's tongue, leaving poverty as a bridle against these faults in those who are at once poor and greedy of wealth. To come to mineral Sulphur. The leader of our Art has directed his disciples to a recognition of this fact, that nothing can be generated from the woman without her husband. They have seen, therefore, that this Art is the father which arranges all things. He has summoned the spirit of transmutation whereby the mineral Sulphur is joined to linseed oil, and thence, by means of decoction a certain form results in the shape of a liver or a lung, and from thence afterwards a twofold liquid, one as white as milk, thick and oily; the other like oil, very red and as thick as blood; but both of such a nature that one will not mix with the other. The white liquid sinks to the bottom, the red floating on the surface. Attempts have been made to go farther, and make a white tincture from the white liquid; but to no purpose. I know that nothing has been done or can be done in this way, because the matter is weak and useless for this Art. But any crystal or beryl placed therein at the proper time, and remaining there for three years at least, is transmuted into a stone very like a jacinth. Likewise a ruby, which has not been sufficiently tinted by Nature, is, in course of time, rendered so clear and bright that it shines by night like a natural carbuncle, and wherever it is placed it can be found at night without a light. The same result follows with a jacinth; and in the sapphire the cœrulean colour is increased beyond the natural hue, with a translucent green tint inserted. It is also a most excellent tincture for other gems, as well as for Luna. If this be placed therein, it grows black, and lays aside the calx of Sol, though it be not fixed until it has arrived at its complete stage of perfection. Enough on this topic. Whoever wishes to work with this tincture, must first learn by means of Alchemy carefully to accomplish its preparation. It is well nigh the most difficult of all alchemical operations so far as preperation is concerned. This oil excels only in tints. In the greater virtues it is not so much to be trusted for acting, because there is a tincture of colour only in it, not of virtue. Some persons have tried also to extract tinctures from the metals. They have failed; but it would not be well to set down here the cause of their failure. This, however, is very certain, whoever has the Tincture of Sol, will be able to bring the body of gold beyond its natural degree, that is to say, from twenty-four to the thirty-six, and beyond, so intensely that it cannot ascend higher, though it still remains constant and fixed in antimony and in every quartation. The Sulphur of Luna, too, exalts its own body to such a degree that Venus, with an equal weight of this Luna, is taken for the Lydian stone. The Sulphur of Venus fixes copper, so that it will stand the test of lightning, but, nevertheless, it does not tinge. With the Sulphur of Saturn [it is transmuted into] the best steel; with the Sulphur of Jupiter, into excellent iron. So, too, tin is fixed with its own

Sulphur, so that it stands lightning, and Saturn is strengthened and fixed by its own [sulphur], so that it no longer affords any ceruse, or minium, or spirit. The Sulphur of Mercury renders its own body malleable, so that it bears the ignition of Venus, but not its ashes. The Sulphur of Sol tinges Luna, but does not fix it. There occur also with the other sulphurs transmutations of things put in them into some other bodies than their own. But this experiment does not turn out as desired. It should be remarked, meanwhile, that Sulphur demands a very expert operator, not a mere boaster or charlatan.

CHAPTER XVIII.

Concerning Arsenic used for Alchemy.*

It seems right to connect Arsenic generically with Sulphurs rather than with Mercuries, and to treat it immediately after Sulphurs. Some old chemists, or rather sophists, labouring at chemistry, swelling with jaundice, that is, with desire of gold, and a sort of yellow dropsy, when they saw in arsenic the white Tincture of Venus, and the red tincture in the calamine stone, believing, too, that the true arcanum of the stone was contained in these, thought the white and red electrum were silver and gold until they found out the contrary by tests, and learnt that they had been engaged in a vain work. And not content with that they went on perversely in order to arrive at fixation, and persevered until they had neither house nor possession left. They had wrought a transmutation in themselves rather than in the metals! And what wonder? They approached this work without judgment, and possessing no knowledge of minerals and metals, as so many of those who embark in the Art at the present day do. Since the time when the name of electrum given by the ancients passed into oblivion, there has forthwith followed the ruin of those

* In this case, also, the Geneva folio offers considerable variations from the text as it stands above. Concerning the Alchemical Virtues in Arsenic.—A certain name was invented and put forth by our ancestors, namely, electrum. Electrum is a metal proceeding from another metal, and unlike the metal from which it descends. For example: Copper turns to white metal. When its redness is removed it is called electrum. In like manner, from copper, by means of cadmia, is made orichalcum, and this is called red electrum. These different kinds of electrum certain alchemical sciolists and artists reckoned as silver, and sometimes took in place of gold; nor did they understand or believe anything else save that this was silver, and so that silver could be produced from copper. Omitting the name of electrum, they took it for silver or for gold, and did not leave off their investigations so long as a house or a court remained. I point out this in order that error may be avoided, and that due consideration may be given to the questions, What is electrum? what is gold? and what is silver? and that in this way no rash measures may be taken. Now, I will lay before you a certain medicament. Take the metal arsenic, prepared in a metallic way; cement the same with Venus in the usual manner, and you will find a large quantity of electrum in the copper. No one need incur great expense for this substance, because it costs a good deal to make electrum. So, then, it is better to leave copper as copper in its own form. In no respect is its electrum better, but rather commoner. So by dissolving it in graduated water it leaves a calx. It is not that silver is produced, but electrum; and it is rendered so subtle that nothing whatever remains, but it vanishes, and because it is not fixed it is consumed. Thus not only in copper, but also in iron, tin, steel, etc., a residuum is left; but nothing of a fixed character is present, and in this way many are deceived. Eventually matters came to this crisis, that electrum lost its name and was called silver, whereupon there began for the alchemists destruction, exile, misery, and disappointed hopes. There are many recipes of this kind which it is not necessary to recount. They are well known to artists who follow me in this chapter, who also have well weighed their own error in seeking it in vain elsewhere. There is a good deal of seduction for juniors to desert the method of their elders, and when the pupil wishes to be more learned than the master, and no longer remains in the right path, but judges things for himself, and is prepared to abide by his own opinion. All that comes of it is, he labours in vain, thus atoning for his fault and incurring grievous loss. The ancients called this substance electrum, and such is its proper name. The moderns call it silver—its improper name. Our forefathers avoided all loss because they knew what they were about; the rising generation do not know, and so incur loss. It has been a constant custom in alchemy that

who changed that name into fictitious gold and silver. That has been the destruction of modern chemists. To define Electrum: it is a metal made from some other by Art, and no longer resembling that from which it was made. For example: arsenical metal, prepared according to the form of metallic preparation, cemented with Venus in the accustomed manner, converts the whole copper into white electrum more worthless than its own copper. What need is there to deprave metals at great expense? Would it not be better to leave the copper in its own natural essence, to keep one's money, and devote time and labour to a more useful work? The ancients called Electrum by its proper name; the moderns falsely call it silver. The ancients were not losers, because they knew the Electrum itself; the moderns, because they have no knowledge of Electrum, throw away their faculties, labour, and time. Now, since in Alchemy all mistakes are constantly propped up with some new hope, it was tried to fix Arsenic by means of reverberations for some weeks, and by other devices. Thence it ensued that the Arsenic became red and brittle like coral, but of no use in Alchemy except for Electrum, as was just now said. Then by descent and precipitation they effected nothing more than by their calcinations. Thus it happens that in Alchemy obstinate men are deceived because they do not learn thoroughly from the foundation all the terms of the Art. It is true that Arsenic does, in its own natural condition, contain gold; and that this gold, by the industry of the artist, can sometimes be separated in a cement, or a projection, or otherwise, into silver, copper, or lead by attraction; but it does not therefore follow that this is produced by his operations and his tinctures. It means only that the gold which was there before has been derived by a process of separation, as it generally is, from its ore. It is nearly always found golden, and very seldom lacks gold, as is the case with many

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investigations shall be made with persistent good hope. Hence operators have tried to fix arsenic, and to transmute it into another essence, on the chance that it may be, or may be rendered, better, and prove of greater efficacy. Hereupon followed the reverberation of arsenic, and its circulation in a reverberatory of reeds for some weeks, or by some similar process. Arsenic has been rendered like crystal, red and beautiful, like red glass for its hardness, light weight, and fragility. There is no place for the virtues of this arsenic in medicine. It regards only electra, as has already been said. Moreover, it has been attempted to deal with this, too, by another method of preparation, namely, by descent. By this method it is rendered red and yellow, and in potency is equivalent to the species already mentioned. Some have precipitated it, and it has approached, or even reached, a red colour; and yet not all the operators in this way have reaped the fruit of their labours or arrived at the result they contemplated, but only at the electric stage of it, which, on account of their ignorance and inexperience, led many artists astray. Wherefore it is necessary that everyone in these things should be farsighted. He who has not full knowledge and comprehension of all names does nothing, and the heads, however full of brains, do not get at the foundation of the matter. One thing is wanting to them for a foundation—to know electrum and other substances when they see them. Then they understand of themselves whether they can progress with electrum or not. Nevertheless it often happens that arsenic is auriferous in its nature, and contains gold in it. Now, if an operator is skilled in separating gold from arsenic, whether by a cement or by some method of projection, or by another process, so that he can reduce that gold to some metal, such as silver, copper, or lead, without doubt he will find it to be gold, and of excellent quality too. To follow this up so that a tincture shall be produced, or it shall issue forth from a tincture, is nothing; but the gold is in the arsenic, and the whole matter lies in depurgation, separation, and kindred processes, according as anyone has experience therein. Arsenic, especially, which comes from auriferous districts, or from gold, is rarely without gold. The only point of importance is that the separation shall be properly made. I know nothing more of arsenic and its species beyond what I have put forward; at least, nothing which it is lawful and expedient to make known, whether with reference to medicine or to alchemical operations. Whoever has prudence ought to be sufficiently skilful for this purpose. If he has it not, let him altogether abstain. No faculty can subdue itself; but failure must ensue if due order and a genuine mode of procedure have not been preserved. You should follow the guidance of your own judgment. The man who follows no other guide is not in a state of subservience to any.

other substances. So far, then, have I given concerning Arsenic what I know, or what it is advisable to write. Let everybody first of all diligently examine its name, so that he may understand. Otherwise error is apt to arise easily in both faculties, which is only at length discovered by the result.

CHAPTER XIX.

Concerning Quicksilver.

Having dealt with salts and sulphurs, we come to Quicksilver. This cannot be properly termed a metal, but rather a metallic water; but it is called a metal for this reason, because, by means of Alchemy, it is brought to a solid substance and into a metallic colour, sometimes being fixed and sometimes not fixed. It can only be known as the chief material of Alchemists, who are able from it to make gold, silver, copper, etc., which will stand the test. So, too, perhaps tin, lead, and even iron. It is of a wonderful nature, inscrutable save after great labour. In a word, it shews itself to be the first material of Alchemists in metallic degrees, and the chief arcanum in medicine. It is a water which wets nothing it touches, an animal without feet, and the heaviest of all metals. It consists of Sulphur, Salt, and Mercury. The first and last matter it discloses in liquefactions of the metals, especially those which liquefy by heat without fire, and in others by flux.

CHAPTER XX.

Concerning Cachimiæ and Imperfect Bodies.

There is another kind of mineral bodies which is not saline, nor is it a metal, but metallic; such are marcasites,* chiseta red and white, perfect and imperfect antimoniacs, arsenicals, auripigments, various talcics, cobleta, granata, gem-like bodies, etc. I say these are metallic bodies since they have chiefly the first metallic matter, and derive their origin from the first three metallic bodies, to which they fly, as it were, and are incorporated with them as metals, for instance, gold, silver, copper, iron, etc. But since together with them there is incorporated a metallic enemy, they can only be separated

* Marcasites are to be found in all genera, whether you have regard to colour, brilliancy, form, or any other property. For they are nothing else than the superfluity of metals, that is, matter abundant in metals, being something which metals are unable to bear or contain within them, or convert into their own form. First of all, when the salts are separated from Ares (the occult dispenser of Nature), a separation of metals follows. Out of these, firstly, marcasite is produced which is unfit to become a metal, and yet in that matter it so resides that at first out of Ares there grows that matter of the metals. And it is the first matter, consisting of three things, the spirit of salt, the spirit of mercury, and the spirit of sulphur, but in such a manner that these three are one. Of these all metals and minerals consist. These things being so ordered, Archeus (the occult virtue of Nature) institutes the first operation of metals, so as to produce them and distinguish them into their forms and natures. But before he deals with the metals themselves, he ejects the superfluity which abounds in salt, mercury, and sulphur, and purges the three, after which the superfluity emerges along a simple line into its own yliadum (chaos), and is at first divided into two genera, marcasites and cachimiæ Here it is coagulated into a mineral, consisting of salt, sulphur, and mercury. Yellow marcasite obtains its colour from the predominance of sulphur; the white from the predominance of mercury. For sulphur and cachimiæ acquire their colour from salt, for this is derived from the spirit of salt, just as gravity is derived from mercury in all three. But if the separation be properly effected, each of the minerals, that is to say mercury, sulphur, salt, settles in its own place. Of these three all minerals consist.—*De Elemento Aquæ* Tract III., c. 1.

by means of Alchemy when set free from the tyranny of this foe. There are different enemies of this kind which practise robbery against the metals, just as if anyone seeking refuge with a companion should be robbed in his house and killed by the very man whose help he asked. Some of those spoken of consist chiefly of Sulphur, as marcasites, chiseta, cobleta; others in the body of Mercury, as arsenicals, auripigmentals, antimoniacs, etc. Others in Salt, as all belonging to talc. There are two colours of marcasites, the white and the yellow, according to the imperfect metallic Sulphur arranged in them, which also they need for many purposes. An imperfect metal is made from cobleta. This admits of liquefaction, and passes into a state of flux, is of a blacker colour than lead and iron, but of no brightness or metallic glitter; it barely admits of malleation, so that scarcely anything can be made from it. Its ultimate matter has not yet been discovered, nor the process of its separation. There is no doubt it is a promiscuous race from the male and female, as is the case in iron and steel, but these cannot be perfectly welded until some method of separation is discovered. There is another similar body called zinchinum; not that which is commonly so known, but a peculiar kind in which various metals are found to be adulterated, of a liquefiable nature and not malleable. It differs much in colour from the others, of which the last has not yet been found. In its preparation it is almost as wonderful as Mercury itself. It avoids mixture with anything else, and remains a special glass much to be admired among minerals. Metallic grains are found also in torrents, and are called granates, on account of their outer form. They are liquefied and bear the hammer; but still are not capable of being made into any implement. The properties of these bodies cannot be known unless they are revealed by Alchemy. Many contain adulterated metals, such as silver and gold, which flow to them, as they are accustomed to do to copper and to lead. They consist of a certain dense kind of Sulphur. Some granates of another kind are clear as crystal, and there is gold and silver in them.*

CHAPTER XXI.

Concerning Metals free by Nature, Perfect and Imperfect; and first concerning Saturn, or Lead.

Saturn has obtained a body the blackest and densest of all (though white, yellow, and red inhere therein), Mercury a similar one, and Salt one

* As in the generation of marcasites, so in cachimiæ. The superfluity is ejected from the prime principles. Sometimes mercury, sometimes sulphur, sometimes salt, will predominate, and that which predominates forms a mineral. In marcasites sulphur and mercury prevail, as two very light things which first fly away, then coagulate, and become very heavy. After the superfluity more completely departs, there is more salt and less of the other principles, though they are not altogether absent. Thus originate cachimiæ, tabulated and fissile, out of the nature of salt, which in sulphur and such mercury is of this property. It has all colours, white and red, receiving them from sulphur and mercury as one or the other predominates. But cachimia is more fixed and solid than marcasite, by reason of its fixed salt. Colours, also, are fixed in it, so that it may receive no injury from the fire. Thus marcasite is the superfluity abounding in the first matter of metals in Ares, which is separated by Archeus into Yliadum, whence afterwards are generated about thirty forms of marcasite and cachimiæ, all of which are, nevertheless, comprehended under two names. The multiplicity of these genera, which are all derived from one matter, is owing to the unequal manner in which the three prime principles are combined. —*Ibid.*, c. 2.

above all others fusible. By corruption it is easily reduced to its spirit, to white or yellow cerussa, to minium, and lastly, to glass, like the rest. Tin is made up of white fixed Sulphur and fixed Salt but of Mercury not fixed. And because it is fixed in body, not in Mercury, it easily loses its metallic fusion, the spirit passing away by the fire; and when this is absent it is no longer a metal but an evanescent body. Iron and steel are not of the liquefiable Sulphur, Salt, and Mercury, contrary to tin and lead. Iron is coagulated into the hardest metal of all, and it marries itself: that is, two metals are found in one, steel the male, and the female iron. These can be separated one from the other, each for its special use. Gold is generated from the very purest Sulphur, perfectly sublimated by Nature, purged from all its dregs and spurious admixtures, and exalted to such a transparency that no metal can corporeally ascend higher. This Sulphur is one part of the primal element, and if Alchemists could have this as something easily discoverable in its tree and root, they would be able with due cause to rejoice; for it is the true Sulphur of the philosophers out of which gold is made, not that other gold out of which is made iron, copper, etc. This is its universal test. Its Mercury, too, is by Nature perfectly separated from all terrestrial and accidental superfluity, transmuted separately into its mercurial part, and into extreme perspicuity, which Mercury of the Philosphers is the second part of the primal matter of gold, from which gold is generated. Lastly, Salt is the third part of the primal essence of gold, and of the tree from which gold is to be produced, as roses from rose-seeds—gold which is brought to its supreme crystalline brightness, and purified from all the acridity, acerbity, bitterness, darkness, and vitriolic nature of Salt, so that nothing of this kind appertains to it, now that it rejoices in its lucidity and transparency.

When these three meet together in one, the gold is decocted into a mass, not, however, always of one and the same condition or degree. Nature exhibits thirty-two grains of gold, and these in Art become twenty-four grains in the highest grade of perfection. The cause of this is that the gold is nourished in its tree as a cow in its pastures, or an epicurean in his cook-shop and eating-house. Directly one of these leaves his feeding-place he grows lean, and so is it with gold; it is diminished by eight degrees. And as some of these feeding-places are occasionally inferior, it happens that the degrees of the gold are deteriorated or diminished too; so that Nature's sum total of twenty-six is reduced in Art to ten. The accidents, or rather the incidents, of the stars or of the elements sometimes hinder the generation of gold, so that it becomes ruder and less tractable in its nature. But it is especially inequality in the weights of the three primals which has effect. Too great a portion of Salt renders it too pale. With too much Mercury it grows yellow, and with a too plentiful supply of Sulphur it is rendered red. In Nature, just as much as in the work of man, errors occur by means of these hindrances; but these can be removed by means of antimony, cements, and quartations. In Sulphur nothing should be looked for but a body, in Salt confirmation, but

in Mercury all virtue, property, essence, and medicine, which do not exist anywhere else as it does therein; but rather as in a dead body from which the spirit has departed, in which, however, we try to keep some of the elementary powers, as, for instance, the remains of the fire of wine in Acetum, though these are corrosive rather than nutritive or strengthening. Natural objects clearly shew that they are compounded of the four elements; but beyond that the matter is occult. They are made up only of the three we have spoken about, which possess a magnet common to them all. This, in the decoction of the preparation, attracts to itself the trinity of essence. The old philosophers called this state *esse*, because the trinity acquires a condition of unity in which the natural motion reposes and settles the degree. But that magnetic virtue should deservedly be called a fourth *esse* (not element) since it attracts the medicine to the Mercury in which it is found. In the ultimate separation, however, the Mercury loses most of its weight. All these matters being thus arranged by Nature, the gold grows up to a tree, spreading forth first from the root by the trunk to its branches and twigs, on which flowers are produced (as we see on the earth), and when these fade the fruit is not always found at the extremities of the twigs, but sometimes a hundred paces farther off in the tree, occasionally in its very midst, or some degrees towards the surface of the earth. It will sometimes happen that nothing but Mercury is produced, when by its superfluity it has suppressed the other ingredients. If, however, the Salts preponderate, their corrosive nature, like so many worms, consumes the flowers of the tree. By the preponderance of Sulphur everything is burnt up, just as on earth by the too great heat of the sun. Copper is produced by the brown Sulphur, red Salt, and yellow Mercury decocted into a metal. This contains within itself its masculine element, that is, the scoria; and if it be again reduced to a metal after separation, it returns to masculine copper, which can no longer be corrupted; and the female will afford no scoriæ at all. On malleation and fusion they differ from each other only as steel and iron, and can be separated in the same way, so that two different metals are thence produced. Silver is composed of white Sulphur, Salt, and Mercury, naturally prepared and fixed to the highest degree of purity and transparency, next after gold, in ashes, not in antimony, or in royal cement, or in quartation. The difference of fixation between gold and silver can easily be learnt by considering that gold is masculine, and has the male virtues very strongly fixed, while silver, as the female, has them weaker. They are of one and the same primal matter, and differ as to colour and fixing in no other way than as the male and the female. The metals, then, are seven in number, exclusive of Mercury, namely gold, silver, tin, lead, iron, steel, and copper. The last contains within itself the male and female, when both are welded for use, and are not separated by Nature, as steel and iron are; so that they are held as one, and since they possess the same malleability and power of being wrought, they are not commonly separated, except when this is done chemically for purposes of the Art. It should be remarked, too, that metals are not always found with their mascu-

line and feminine portions separated by Nature, as is the case with gold, silver, iron, and steel, each by itself. Often the two are found together, as gold and silver in one metal, also steel and iron together, or tin and lead, the one not hindering the other, or being separated one from the other. Sometimes two adulterated metals are found, as gold and silver naturally mixed with others, on account of their subtlety, especially when several of diverse primal nature meet in one body, just as we see on the earth different fruits engrafted on the trunk of one tree.

Conclusion.

A fitting treatise on the natural generation of metals was absolutely necessary in order that it might be understood what is meant by the regeneration of metals brought about through Alchemical Art. The opinion of all those who philosophise on this Art is that the Artist in this profession ought in all things exactly to imitate Nature. So, then, it was necessary to say and to understand how Nature works in the innermost parts of the earth, and what instruments she employs. Whoever has not understood in this way will be little likely to get at the knowledge by his own unaided endeavours. Let him who investigates this difficult and abstruse matter be not so much the disciple of Art as of Nature.

Here ends the Economy of Minerals.

THE COMPOSITION OF METALS.*

IF any one denies that there is great efficacy in the Composition of Metals so far as relates to supernatural affairs, we will answer him, and bring forward so many proofs as shall support our own opinion and force him to subscribe thereto. For if the seven metals were, in just and due order, compounded, mixed together, and united in the fire, you must certainly hold that in one body were conjoined and linked together all the virtues of the seven metals. It has been seen good to call this body electrum. Its efficacy, power, and operations, moreover, shew themselves to be much greater, even supernaturally so, than exist in a latent form grafted by Nature on metals in their rude condition. In those solid and rude metals are only those powers wherewith God and Nature herself have endowed them. Gold, indeed, is the noblest of all, the most precious and primary metal, if we rightly consider it; and we are not prepared to deny that leprosy, in all its forms, can be thereby removed from the human frame. Nor are we unaware that exterior ulcers and wounds are cured by copper and mercury. The other metals, too, have each their own excellences, and these not by any means to be despised; but we will pass over these for the moment, since you will hear of them when we come to treat concerning the Life of the Metals.† But metals cannot be used in medicine without injury, unless they be first comminuted, altered, and, after being deprived of their metallic nature, transmuted into another essence. You can hope for little result from them unless the preparation which Alchemy teaches shall have preceded their administration; that is, if you have not previously reduced them to their arcana, oils, balsams, quintessences, tinctures, calces, salts, crocuses or the like, and then administered them to the patient. Moreover, the supernatural force or effect of the metals, even though it be present in them, will be of no avail unless you first prepare them according to our method in which we will instruct you. But we greatly desire that our electrum should be compounded, since it can afford great and marvellous results in proportion as it is revealed by practice. If we consented to pass

* A considerable portion of this tract belongs more properly to the section concerned with Hermetic Medicine, but it is inserted at this point for the further illustration of the subject of electrum, which is somewhat shortly discussed in the foregoing treatise. The work *De Compositione Metallorum* is printed in separate form in the Basle 8vo, but it really constitutes the sixth book of the *Archidoxis Magicæ*, as they are found in the Geneva folio.

† So far as the *Archidoxis Magicæ* are concerned, this promise is not fulfilled. Possibly Paracelsus intended to carry his subject further than the seventh book, which is devoted to the sigils of the planets, and has nothing of a chemical nature. But possibly, also, a reference is intended to the first book *Concerning the Nature of Things*.

over its praises in silence, we should consider that we were doing it an injury: but since its operation and mighty power surpass belief, we deem it necessary to pronounce an eulogium on its virtues and efficacy. We will defer for the moment any mention of the rude and solid metals, since they admit of no comparison with our electrum. If any appliance used for food or drink be made of this material and diligently watched, it will be impossible for any poison or drug to be placed in it, because in our electrum there is so much sympathy towards man through the force, efficacy, and influence of the planets and the stars of Olympus, that for very pity, and as though in difficulty, directly it is taken in hand it betrays the poison by breaking out into a sweat and projecting spots. For this reason our ancestors used to have their drinking-cups, dishes, and other utensils made of the said material. There still remain in our age many necklaces and ornaments, such as rings, bracelets, remarkable coins, seals, figures, bells, shekels, made out of this, which of old were hidden in the earth. When they were dug up nobody, or very few, understood them, and in their ignorance they gilded them over or tinged them with silver. It is just a mark of the ignorance of our age that it cares nothing for such objects as these. But God would not have it that such a mystery of Nature and such a great treasure of His own should be hid any longer, but that what had been hidden by the more than Cimmerian darkness of the sophists should now, after a long season, come to light again. We do not assume to exhaust the virtues of our electrum. The ribald genius of the sophists would be hurt; the crowd of fools would be offended, and would receive what we said with idiotic laughter. Over and over again we have been on our guard against scandalising this impious crowd; so to avoid such a result it will be safest to pass over these matters in silence. Not, however, that we can altogether pass unnoticed certain stupendous effects of our electrum; since they came under our own eyes we shall be able to speak the more freely concerning them, without any suspicion that we are romancing or making up a story. We have seen rings, for instance, which removed all fear of paralysis or spasm from those who wore them on their fingers. These people, too, never suffered from apoplexy or epilepsy. If an epileptic patient put such a ring on the third finger, even though he be so overcome by the violence of the paroxysm as to be prostrated on the ground, he comes to himself and gets up.

Here, too, should be added something which we do not give from the report of others, for the same we have seen with our own eyes and know by experience. If the abovementioned ring be worn on the third finger by a man in whom any ailment is latent and growing, so that it would presently break forth in an eruption, the ring would forthwith give an indication by bursting out in a sweat, and as if seized with a sudden sympathy would put forth spots and become depraved in appearance, as we shall shew more fully in our book entitled "Sympathy."

Lastly, since I would not pass over or omit any word in favour of electrum, it is a preservation and an antidote against evil spirits. There is latent in it an operation and a conjunction of planetary influence which make us the more easily believe that the old Magi in Persia and Chaldæa attempted and accomplished much by its aid. If we sought to enumerate all the cases specifically, we should indeed enter upon a marvellous chronicle. Not, however, to give any occasion of offence or allow persons to make a handle of this, it will suffice to have touched the subject in few words. The Sophists, who are my deadliest enemies, would not hesitate to proclaim me Arch-Necromancer. But I cannot refrain from telling a miracle which I saw in Spain when I was at the house of a certain necromancer. He had a bell weighing, perhaps, two pounds, and by a stroke of this bell he used to summon, and to bring, too, visions of many different spectres and spirits. In the interior of the bell he had engraved certain words and characters, and as soon as the sound and tinkle were heard, spirits appeared in any form he desired. Moreover, the stroke of this bell was so powerful that he produced in the midst many visions of spirits, of men, and even of cattle, whatever he wished, and then drove them away again. I saw many instances of this, but what I particualarly noticed was that when he was going to do anything new, he renewed and changed the characters and the names. I did not, however, get so far as to induce this man to impart to me the secret and mystery of the names and characters. At length I began to speculate more thoroughly about this circumstance ; and there came into my mind—ideas which we will pass over in silence here. There was more in that bell than one can put into words ; and of this be very sure, that the material of which it was composed was this electrum of ours. You will therefore have no difficulty in believing that Virgil's bell (Nola) was of such a kind as this. At its stroke all the adulterers and adulteresses in the king's palace were so excited and alarmed that suddenly, as if struck with lightning, they rushed over the bridge into the river. Think not this story a mere fable : the thing really happened. Nor be so dense as to hesitate as to whether such properties can exist. For if, as you know to be the case, a visible man can call another visible man to him by a word, and force him to do what he wants—when a mere word, without the aid of arms, can effect so much, much more can it be that an invisible man can do this, since he commands both the visible and the invisible man, not by the aid of a word, but by the direction of his thought. The inferior always obeys the superior, and stands to him in the light of a subject. So, then, you will easily come round to our opinion if you settle it that the interior or invisible man is a kind of constellation or firmament. For he remains latent in the senses and thoughts of the exterior, visible man, and discloses or reveals himself only by imagination. You will concede, therefore, that there are stars in man and that their constellation is so arranged by the Olympian spirit that the man can be led and changed into quite another man. So, then, I say that

the same thing occurs with metals, namely, that things may be so constellated by celestial impression as to make the operation and virtue which Nature originally determined, really arise from the good aspect of the higher stars, and thus unfold itself, as is shewn in other books of the Archidoxis Magica.* I will subjoin, if you wish, an illustration. Let any one reduce to an amalgam gold and mercury, making a conjunction of Sol and Mercury, but with a preponderance of Sol. Let him mix and blend them, and soon, with little labour, the two metals will become fixed. With these, if you will, you can make a tincture on *Mercurius vivus*. That, again, can afterwards be increased and augmented with other *Mercurius vivus* under the same constellation. This is, indeed, a great arcanum of Nature. There will be a similar composition and union of gold or silver with mercury without this conjunction. For if gold be placed above mercury, so that the white fume of the mercury touch and penetrate the body of the gold, the gold will be rendered fragile, and will melt with the greatest ease like wax. The process is the same with silver.

This is the Magnesia of the Philosophers, in the finding of which Thomas of Aquinum and Rupescissa and their disciples, though they worked hard, were unsuccessful. And let nobody think it an easy matter so to blend *Mercurius vivus* in the fire with harder metals and those of tardier solution—as silver,

* Moreover, it is altogether certain, and experimentally proved, that the mutations of time have singular force and operation, and this is especially the case when certain metals are melted and elaborated together. Further, no one can prove that the metals are devoid of life. Their oils, sulphurs, salts, and quintessences, which are the best reservatives, have enormous power in nourishing and sustaining human life, and herein altogether surpass in strength all other simples, as, indeed, is entirely the case with all our remedies. How, if they were devoid of life, could they awaken in the diseased and half-dead members and bodies of men a fresh and vital strength, and at the very outset restore them? . . . I therefore boldly assert that metals and stones, equally with roots, herbs, and fruits, have a life of their own, with this distinction, however, inasmuch as metals are prepared and elaborated according to time. The efficacy of time is well-known, but we will speak only of those things which are difficult, and not to be grasped by the senses, but, indeed, are almost contrary to their evidence. Further, even signs, characters, and letters have their virtues and efficacies. Now, if the nature and property of the metal, as also the influence and operation of the heaven and of the sphere of the planets, the signification and formation of the characters, signs, and letters, together with the observation of the times, days, and hours, harmonise and agree, why should not a sign or seal composed after this manner have its own force and operation? And why, then, should not such and such a medicine, seasonably applied, benefit the head, another the vision, or a third the veins? And especially in the case of those who dislike to take other remedies into the body. Yet none of these results are possible without the air of the Father of Medicine Himself, Jesus Christ, the one and true Physician. Objectors may say that words or characters have no force, since they are mere signs or figures, and that none at least can compare in efficacy with the cross. But how is it that the serpent in Helvetia, Algovia, or Suavia, understands the Greek phrase *Osy*, *Osyn*, *Osy*, although in none of these countries is Greek so common that venomous reptiles can acquire it? How is it that, the moment they hear the words, they draw in their tails, stop up their ears, and, contrary to their nature, lie motionless, without doing harm to any man? . . . By this it is shewn that characters, words, and signs have a recondite and latent force, not in the least opposed to Nature, nor anything to do with superstition. It is found that these words have the same effect when they are written on paper, and not uttered. So, also, let it not be considered incredible that a man should be cured by medicine, even when he does not take it internally, but carries it suspended like a seal from his neck. That even in dead things there is a certain force, I prove by the example of the kingfisher, for if, when it is dead, you remove its skin, and hang it up, you will see that, although it is dry, it will annually cast its old feathers and produce fresh ones of the same colour.—*Archidoxis Magicæ*, Lib. 1. For it is certain that in the very signs themselves of the planets, if they are harmonised and carried about in the required manner, according to a favourable hour and time, as regards their course, there reside great force and virtue. For none can deny that the superior stars and influences of heaven have very great weight in transient and mortal affairs. If the superior stars and planets are able to control, rule, and sway according to their will the animal man, although he be made according to the image of God, and be endowed with life and reason, how much more ought they to rule an inferior thing, that is to say, metals, stones, and images, upon which they impress themselves, or which they so occupy, with all their virtue and efficacy, after the manner of an influence, as though they were substantially present, even as they are in the firmament? It is possible to man himself to bring these into a certain medium, wherein they may effectually operate, whether this medium be a metal, a stone, or an image. But this is most important of all: to know that the seven planets have greater force in nothing than they possess in their proper metals.—*Ibid.*, Lib. VII

copper, gold, iron, and steel—that they may quickly liquefy. Many tinctures and Elyxeria (*sic*) of metals are prepared thus for transmuting metals, as will be more copiously described in other books on Metallic Transmutations.*

The same is the case with common mercury, which with its fume penetrates all other metals, and, as it were, breaks through them, calcines them, and disposes them to its own nature. Metals will coagulate this by their fume. We assert that the most extreme heat resides in Mercury, and that it cannot be coagulated except by extreme cold, which is seen to exhale copiously from metals in the fire. Nothing affects metals in the fire save what is of extreme cold and unable to bear the vehemence of the fire. Such a metal is arsenic, which being liquefied ascends as a spirit from metals while they are in a state of flux.

Moreover, do not lose sight of the fact that Mercury is a metallic spirit, and that every spirit is more powerful than a body. So is it with Mercury in reference to the other metals. Just as it is easy for a spirit to penetrate walls, so it is not difficult for Mercury to penetrate metals.

How many are the wonderful operations and effects of Mercury on the metals! We cannot detail them all. But shall we send you away empty to some other source? We know from experiment that if *Mercurius vivus* be sublimated from some one of the metals which has been several times calcined, and if then the calcinated metal which remains at the bottom be again reduced to its metal, it is melted in the fire as easily as lead, though it were gold, silver, copper, iron, or steel, even if it be only applied to the flame of a candle like so much wax; or as snow and ice melt before the sun. Afterwards by digestion for a certain time it can be changed into Mercury. We have mentioned this

* The fourth book of the *Archidoxis Magicæ* is entitled, *Concerning the Transmutation of Metals and their Time.* It is literally as follows:—If you seek to change gold into silver, or any given metal into any other metal, have regard to the following tabulation. Nor is it of small moment so that you may be able to arrive at the end of your purpose more quickly and thoroughly. SCHEME OF THE TRANSMUTATION OF METALS.—To transmute Sol into Luna, Venus, Mars, Jupiter, Saturn, or Mercury, begin with Luna occupying the sixth grade of Cancer, Taurus, Aries, Pisces, Aquarius, or Virgo, as the case may be, and always in the hour of that planet into which you wish to convert gold or any of the other metals, namely, Luna, Venus, Mars, Jupiter, Saturn, Mercury. To transmute Saturn into Sol, Luna, Mars, Venus, Jupiter, or Mercury, begin with Luna occupying the twentieth grade of Leo, Scorpio, Cancer, Taurus, Pisces, or Virgo, as the case may be, in the hour of Sol, Luna, Mars, Venus, Jupiter, or Mercury, according to the metal into which you would convert Saturn. To transmute Mercury into Sol, Luna, Venus, Mars, Jupiter, or Saturn, begin with the Moon in the first grade of Leo, Virgo, Cancer, Taurus, Pisces, or Aquarius, as the case may be, in the hour of Sol, Luna, Venus, Mars, Jupiter, or Saturn, according to the metal into which you would convert Mercury. To transmute Luna into Sol, Venus, Mars, Jupiter, Saturn, or Mercury, begin with the Moon in the twelfth grade of Leo, Libra, Scorpio, Sagittarius, Aries, or Gemini, as the case may be, and in the hour of Sol, Venus, Mars, Jupiter, Saturn, or Mercury, according to the metal into which you would convert Luna. To transmute Venus into Sol, Luna, Mars, Jupiter, Saturn, or Mercury, begin with the Moon in the ninth grade of Leo, Cancer, Capricorn, Aquarius, Pisces, or Sagittarius, as the case may be, and in the hour of Sol, Luna, Mars, Jupiter, Saturn, or Mercury, according to the metal into which you would convert Venus. To convert Mars into Sol, Luna, Venus, Jupiter, Saturn, or Mercury, begin with the Moon in the eighty-first grade of Leo, Cancer, Taurus, Sagittarius, Scorpio, or Virgo, as the case may be, and in the hour of Sol, Luna, Venus, Jupiter, Saturn, or Mercury, according to the metal into which you would convert Mars. To transmute Jupiter into Sol, Luna, Venus, Mars, Saturn, or Mercury, begin with the Moon in the third grade of Leo, Cancer, Libra, Virgo, Aquarius, or Pisces, as the case may be, and in the hour of Sol, Luna, Venus, Mars, Saturn, or Mercury, according to the metal into which you would convert Jupiter. For example: If you wish to change gold into silver, make a beginning in the hour of the Moon, when the Moon occupies the sixth grade of Cancer. And so, likewise, understand the rest of this scheme for the conversion of metals. For all terrestrial affairs, occupations, and matters of business, are most conveniently and happily executed in harmony with the motions of the heavens and the planets. For all men, by the dispensations of Almighty God, are ruled and led by the power and operation of the firmament, both as to health and disease. So is it necessary before all things to have regard to this operation in the healing art. Simples very frequently push forth their virtues according to a certain rule of time.

fact in our book on the Resuscitation of Natural Things. This is the Mercury of the Philosophers. In this way you will prepare the Mercury of Gold, of Luna, of Venus, of Mars, of Jupiter, and of Saturn. Although in their books Arnold, Aristotle, and other philosophers boast about this, yet I am well assured that it was never prepared or seen by them. It will now be for you to keep this great secret and mystery of Nature, and to take care that it does not fall into the hands of my adversaries; since it would be an indignity for them to get to know it. A pearl or a precious stone will not please a goose, because the goose does not know its price and value. It would infinitely prefer a turnip. We may fitly say the same of the sophists. It is no injustice to conceal secret mysteries from them. Let us not seem to cast pearls before swine or give that which is holy to dogs, since God sternly forbids us so to do.

But let us proceed to the practical work of our electrum, as we promised at the outset. We would have it prepared, compounded, and conjoined according to the revolution of the heaven and the conjunctions of the planets. We will proceed in this way. First, you must diligently observe the conjunction of Saturn and Mercury; and, before this occurs, have ready the appliances you require. These are, fire, a cauldron, lead cut up into minute pieces, and *Mercurius vivus*. Take care that nothing be wanting which the work in hand requires, or for lack of which the action may be hindered or retarded. Then when the conjunction is just going to take place, let the lead be melted in the fire, and be not quite hot when it shall have fused, lest the Mercury which you pour in escape, or, if the heat be too great, pass off in smoke. Let this be done at the very moment of conjunction. Take out suddenly the cauldron with the liquid lead; pour in the Mercury, and afterwards let them both be coagulated.

Then there will be need of attention when the conjunction of Jupiter with Mercury or Saturn is about to take place, so that you may not be ignorant of the time or pass it by. Let everything you will want be ready to hand as I before admonished you. You must take care, before the actual moment of conjunction, to melt in one vessel fine English tin, and in the other lead with Mercury. At the moment of conjunction move the metals from the fire, slackening the heat a little, and pour all into one crucible. When they have coagulated into one body you will have three metals softer and more easily melting over the fire. When they are united let it not escape your notice that in the very first place these are to be dissolved and conjoined. Then notice when there is a conjunction of any of the other four planets—Sol, Luna, Venus, or Mars—with one of the three former, Saturn, Mercury, or Jupiter. Have all instruments and materials ready. Let them be dissolved singly first; then when liquefied pour them into one at the very point of conjunction, and keep them. In a like way proceed with other metals which are to be joined and copulated with the former, until you have reduced and united all the seven according to the due conjunctions of the planets. So will you have prepared our electrum, concerning which enough has now been said.

CONCERNING THE NATURE OF THINGS.

BOOK THE FIRST.

Concerning the Generation of Natural Things.

THE generation of all natural things is twofold*: one which takes place by Nature without Art, the other which is brought about by Art, that is to say, by Alchemy, though, generally, it might be said that all things are generated from the earth by the help of putrefaction. For putrefaction is the highest grade, and the first initiative to generation. But putrefaction originates from a moist heat. For a constant moist heat produces putrefaction and transmutes all natural things from their first form and essence, as well as their force and efficacy, into something else. For as putrefaction in the bowels transmutes and reduces all foods into dung, so, also, without the belly, putrefaction in glass transmutes all things from one form to another, from one essence to another, from one colour to another, from one odour to another, from one virtue to another, from one force to another, from one set of properties to another, and, in a word, from one quality to another. For it is known and proved by daily experience that many good things which are healthful and a medicine, become, after their putrefaction, bad, unwholesome, and mere poison. So, on the other hand, many things are bad, unwholesome, poisonous, and hurtful, which after their putrefaction become good, lose all their evil effect, and make notable medicines. For putrefaction brings forth great effects, as we have a good example in the sacred gospel, where Christ says, "Unless a grain of wheat be cast forth into a field and putrefy, it cannot bear fruit a hundred fold." Hence it may be known that many things are multiplied by putrefaction so that they produce excellent fruit. For putrefaction is the change and death of all things, and the destruction of the first essence of all natural objects, from whence there issues forth for us regeneration and a new birth ten thousand times better than before.

Since, then, putrefaction is the first step and commencement of generation, it is in the highest degree necessary that we should thoroughly

* There is another aspect in which generation is also twofold, as, for example, that of wood and other things takes place naturally out of seed. But the worms which destroy wood are the product of a monstrous sperm. Hence there are two generations – natural and monstrous. Every sperm in living things has within it another sperm which is monstrous, and can promote its likeness. There is also a monstrous sperm in all minerals.—*Paragraphorum* Lib. II., Par. IV.

understand this process. But there are many kinds of putrefaction, and one produces its generation better than another, one more quickly than another. We have also said that what is moist and warm constitutes the first grade and the beginning of putrefaction, which procreates all things as a hen procreates her eggs. Wherefore by and in putrefaction everything becomes mucilaginous phlegm and living matter, whatever it eventually turns out to be. You see an example in eggs, wherein is mucilaginous moisture, which by continuous heat putrefies and is quickened into the living chicken, not only by the heat which comes from the hen, but by any similar heat. For by such a degree of heat eggs can be brought to maturity in glass, and by the heat of ashes, so that they become living birds. Any man, too, can bring the egg to maturity under his own arm and procreate the chicken as well as the hen. And here something more is to be noticed. If the living bird be burned to dust and ashes in a sealed cucurbite with the third degree of fire, and then, still shut up, be putrefied with the highest degree of putrefaction in a *venter equinus* so as to become a mucilaginous phlegm, then that phlegm can again be brought to maturity, and so, renovated and restored, can become a living bird, provided the phlegm be once more enclosed in its jar or receptacle. This is to revive the dead by regeneration and clarification, which is indeed a great and profound miracle of Nature. By this process all birds can be killed and again made to live, to be renovated and restored. This is the very greatest and highest miracle and mystery of God, which God has disclosed to mortal man. For you must know that in this way men can be generated without natural father and mother; that is to say, not in the natural way from the woman, but by the art and industry of a skilled Spagyrist a man can be born and grow, as will hereafter be described.

It is also possible to Nature that men should be born from animals, and this result has natural causes, but still it cannot be produced without heresy and impiety. If a man have connection with an animal, and that animal, like a woman, receives the seed of the man with appetite and lust into its womb, and shuts it up there, then the seed necessarily putrefies, and, through the continuous heat of the body, a man, and not an animal, is born from it. For always, whatever seed is sown, such a fruit is produced from it. If this were not so it would be against the light of Nature and contrary to philosophy. Whatever the seed is, such is the herb which springs from it. From the seed of an onion an onion springs up, not a rose, a nut, or a lettuce. So, too, from corn comes corn; from barley, barley; from oats, oats. Thus it is, too, with all other fruits which have seeds and are sown.

In like manner, it is possible, and not contrary to Nature, that from a woman and a man an irrational animal should be born. Neither on this account should the same judgment be passed on a woman as on a man, that is, she should not on this account be deemed heretical, as if she had acted contrary to Nature; but the result must be assigned to imagination. Imagination is very frequently the cause of this: and the imagination of a pregnant

woman is so active that in conceiving seed into her body she can transmute the fœtus in different ways: since her interior stars are so strongly directed to the fœtus that they produce impression and influence. Wherefore an infant in the mother's womb is, during its formation, as much in the hand and under the will of the mother as clay in the hand of the potter, who from it forms and makes what he likes and whatever pleases him. So the pregnant mother forms the fruit in her own body according to her imagination, and as her stars are. Thus it often happens that from the seed of a man are begotten cattle or other horrible monsters, as the imagination of the mother was strongly directed towards the embryo.*

But as you have already heard that many and various things are generated and quickened out of putrefaction, so you should know that from different herbs, by a process of putrefaction, animals are produced, as those who have experience of such matters are aware. Here, too, you should learn that such animals as are produced in and by putrefaction do all of them contain some poison and are venomous; but one contains far more and more potent virus than another, and one is in one form, another in another, as you see in the case of serpents, toads, frogs, basilisks, spiders, bees, ants, and many worms, such as canker-worms, in locusts, and other creatures, all of which are produced out of putrefaction. For many monsters are produced amongst animals. There are those monsters, too, which are not produced by putrefaction, but are made by art in the glass, as has been said, since they often appear in very wonderful form and horrible aspect; frequently, for instance, with many heads, many feet, or many tails, and of diverse colours; sometimes worms with fishes' tails or birds' wings, and other unwonted shapes, the like of which one had never before seen. It is not, therefore, only animals which have no parents, or are born from parents unlike themselves, that are called monsters, but those which are produced in other ways. Thus you see with regard to the basilisk, which is a monster above all others, and than which none is to be more dreaded, since a man can be killed by the very sight and appearance of it, for it possesses a poison more virulent than all others, with which nothing else in the world can be compared. This poison, by some unknown means, it carries in

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* Here, as elsewhere throughout his writings, Paracelsus lays special stress on the power exercised by the imagination.—It is necessary that you should know what can be accomplished by a strong imagination. It is the principle of all magical action.—*De Peste*, Lib. I. The imagination of man is an expulsive virtue.—*De Peste*, s. v. *Additamenta in* Lib. I. The imagination dwelling in the brain is the moon of the microcosm.—*De Pestilitate*, Tract II., c. 2, *De Pyromantica Peste.* All our sufferings, all our vices are nothing else than imagination. . . . And this imagination is such that it penetrates and ascends into the superior heaven, and passes from star to star. This same heaven it overcomes and moderates. . . . Whatsoever there is in us of immoderate and inhuman, all that is an imaginative nature, which can impress itself on heaven, and, this done, heaven has, on the other hand, the power of refunding that impression.—*De Peste, Additamenta in* Lib. I., Prol. So, also, a strong imagination is the source of both good and evil fortune.—*De Peste*, Lib. II., c. 2. Any strong appetite, desire, or inclination nourished by the imagination of a pregnant woman can be and is often impressed upon the fœtus. It is also possible for such a woman, by persistently thinking upon a wise and great man, such as Plato or Aristotle; an illustrious soldier, such as Julius Cæsar or Barbarossa; a great musician, like Hoffhammer; or a painter, like Durer; so to work upon the plastic tendencies of her offspring, that it will exhibit similar qualities. But there must be something also in the mother which shall correspond to the special talents which she has imagined.—*De Origine Morborum Invisibilium*, Lib. III. Imagination can distort and deform the fœtus, and in this manner many wonders are produced, when there are no physical peculiarities in the parent.—*Ibid.*

its eyes, and it is a poison that acts on the imagination, not altogether unlike a menstruous woman, who also carries poison in her eyes, in such a way that from her very glance the mirror becomes spotted and stained. So, too, if she looks at a wound or a sore, she affects it in a similar way, and prevents its cure. By her breath, too, as well as by her look, she affects many objects, rendering them corrupted and weak, and also by her touch. You see that if she handles wine during her monthly courses it soon turns and becomes thick. Vinegar which she handles perishes and becomes useless. Generous wine loses its potency. In like manner, amber, civet, musk, and other strongly smelling substances being carried and handled by such a woman lose their odour. Gold, corals, and many gems are deprived of their colour, just as the mirrors are affected in this way. But—to return to my proposal of writing about the basilisk—how it carries its poison in its eye. You must know that it gets that power and that poison from unclean women, as has been said above. For the basilisk is produced and grows from the chief impurity of a woman, namely, from the menstrual blood. So, too, from the blood of the semen ; if it be placed in a glass receptacle and allowed to putrefy in horse dung, from that putrefaction a basilisk is produced. But who would be so bold and daring as to wish to produce it, even to take it and at once kill it, unless he had first clothed and protected himself with mirrors ? I would persuade no one to do so, and wish to advise every one to be cautious. But, to go on with our treatise about monsters, know that monstous growths amongst animals, which are produced by other methods than propagation from those like themselves, rarely live long, especially near or amongst other animals, since by their engrafted nature, and by the divine arrangement, all monsters are hateful to animals duly begotten from their own likeness. So, too, monstrous human growths seldom live long. The more wonderful and worthy of regard they are, the sooner death comes upon them ; so much so that scarcely any one of them exceeds the third day in the presence of human beings, unless it be at once carried into a secret place and segregated from all men. It should be known, forsooth, that God abhors monsters of this kind. They displease Him, and none of them can be saved when they do not bear the likeness of God. One can only conjecture that they are shapen by the Devil, and born for the service of the Devil rather than of God ; since from no monster was any good work ever derived, but, on the contrary, evil and sin, and all kinds of diabolical craft. For as the executioner marks his sons when he cuts off their ears, gouges out their eyes, brands their cheeks, cuts off their fingers, hands, or head, so the Devil, too, marks his own sons, through the imagination of the mother, which they derive from her evil desires, lusts, and thoughts in conception. All men, therefore, should be avoided who have more or less than the usual numbers of any member, or have any member duplicated. For that is a presage of the Devil, and a certain sign of hidden wickedness and craft.*

* A special treatise on this subject and cognate matters is found elsewhere in the Geneva folio. It is, briefly, as follows. There are many monsters in the sea which are not products of the original creation, but are born from the

But neither must we by any means forget the generation of homunculi. For there is some truth in this thing, although for a long time it was held in a most occult manner and with secrecy, while there was no little doubt and question among some of the old Philosophers, whether it was possible to Nature and Art, that a man should be begotten without the female body and the natural womb. I answer hereto, that this is in no way opposed to Spagyric Art and to Nature, nay, that it is perfectly possible. In order to accomplish it, you must proceed thus. Let the semen of a man putrefy by itself in a sealed cucurbite with the highest putrefaction of the *venter equinus* for forty days, or until it begins at last to live, move, and be agitated, which can easily be seen. After this time it will be in some degree like a human being, but, nevertheless, transparent and without body. If now, after this, it be every day nourished and fed cautiously and prudently with the arcanum of human blood, and kept for forty weeks in the perpetual and equal heat of a *venter equinus*, it becomes, thenceforth a true and living infant, having all the members of a child that is born from a woman, but much smaller. This we call a homunculus; and it should be afterwards educated with the greatest care and zeal, until it grows up and begins to display intelligence. Now, this is one of the greatest secrets which God has revealed to mortal and fallible man. It is a miracle and marvel of God, an arcanum above all arcana, and deserves to be kept secret until the last

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sperm of fishes of unlike species coming together contrary to the genuine order of Nature. Thus monsters are sometimes found in the sea exhibiting the form of man, which yet have not been generated *ex sodomia* from men, but arise by the conjunction of diverse fishes. . . . Even among men monsters are sometimes found that remind us partly of a human being, and partly of an animal. This is a repellent subject, but requires to be fully explained, that the first birth may be correctly understood. The same also takes place in the sea. There is, for example, the syren, of which the upper parts are those of a woman and the lower those of a fish. This does not form part of the original creation, but is a hybrid offspring from the union of two fishes of the same kind, but of different forms. Other marine animals are also found, which, without corresponding exactly to man, yet resemble him more than any other animal. However, like the rest of the brutes, they lack mind or soul. They have the same relations to man as the ape, and are nothing but the apes of the sea. As often as they unite, marine monsters of this kind are produced. Another such monstrous generation is the monachus or monk-like fish. But there are many genera of fishes, and many modes of generation, which do not always result from the sperm familiar or customary to them, but happen in various other ways. For example, certain monsters are drowned in the sea, and are devoured by the fishes. Now, if a sperm, constituted in exaltation, were to perish by immersion, and, having been consumed by a fish, were again exalted within it, a certain operation would undoubtedly follow from the nature of the fish and the sperm, whence it may be gathered that the majority of marine animals which recall the human form are in this manner produced. Yet, having the nature of a fish, they live in the waters and rejoice therein. The marine dog, the marine spider, and the marine man are of this class. If they are generated in any other way, it must he set down to sodomia. But there may he a third cause, namely, when spermatica of this kind acquire digestion, and by reason of this conjunction a birth takes place. . . . Monsters are likewise generated in the air, from the droppings of the stars from above. For a sperm falls from the stars. The winds also in their courses bring many strange things from other regions to which they are indigenous. The sperm of spiders, toads, and other creatures floating in the air are resolved, and hence other living things are produced. In this way grasshoppers and other monsters are begotten, their generation being of one only and not of two. Such births are more venomous and impure than are other worms. Therefore, houses ought to be scrupulously cleaned, or else so constructed as not to favour the accumulation of much filth. For the air is efficacious against seeds dispersed in this manner. The earth is, however, the most fruitful matrix of monstrous growths. There the animals both of land and sea congregate. The basilisk is generated from the sperm of a toad and a cock. The sperm of the cock uniting with that of the hen produces an egg. But if the cock emit his sperm without the hen doing likewise, the egg will be imperfect, and something will be generated unnaturally. There is another kind of basilisk, produced by the union, *sodomitice*, of a cock and a toad. After the same manner, lizards unite with geckoes, and the copulation produces a peculiar worm, partaking of the nature of each, and known as a dragon. The asp is another instance of this unnatural generation. . . . From all that has been set down we may learn that whoever lives for his body alone is a basilisk, a dragon, and an asp, not, indeed, generated as yet, but meanwhile moving alive until he dies. You can now understand the abominable manner wherein unnatural monsters are generated. For if a man lives in sperm, his very sperms turn into worms, and remain worms, and in the day of the resurrection shall they he buried in the deepest parts of the earth, over which shall walk those who have risen.—*De Animalibus natis ex Sodomia.*

times, when there shall be nothing hidden, but all things shall be made manifest. And although up to this time it has not been known to men, it was, nevertheless, known to the wood-sprites and nymphs and giants long ago, because they themselves were sprung from this source; since from such homunculi when they come to manhood are produced giants, pigmies, and other marvellous people, who are the instruments of great things, who get great victories over their enemies, and know all secret and hidden matters.* As by Art they acquire their life, by Art acquire their body, flesh, bones and blood, and are born by Art, therefore Art is incorporated in them and born with them, and there is no need for them to learn, but others are compelled to learn from them, since they are sprung from Art and live by it, as a rose or a flower in a garden, and are called the children of the wood-sprites and the nymphs, because in their virtue they are not like men, but like spirits.

Here, too, it would be necessary to speak about the generation of metals, but since we have written sufficiently of these in our book on The Generation of Metals, we will treat the matter very briefly here, and only in a short space point out what we there omitted. Know, then, that all the seven metals are born from a threefold matter, namely, Mercury, Sulphur, and Salt, but with distinct and peculiar colourings. In this way, Hermes truly said that all the seven metals were made and compounded of three substances, and in like manner also tinctures and the Philosophers' Stone. These three substances he names Spirit, Soul, and Body. But he did not point out how this was to be understood, or what he meant by it, though possibly he might also have known the three principles, but he makes no mention of them. I do not therefore say that he was in error, but that he was silent. Now, in order that these three distinct substances may be rightly understood, namely, spirit, soul, and body, it should be known that they signify nothing else than the three principles, Mercury, Sulphur, and Salt, from which all the seven metals are generated. For Mercury is the spirit, Sulphur is the soul, and Salt is the body. The metal between the spirit and the body, concerning which Hermes speaks, is the soul, which indeed is Sulphur. It unites those two contraries, the body and the spirit, and changes them into one essence. But it must not be understood that from any Mercury, and any Sulphur, and any Salt, these seven metals can be generated, or, in like manner, the Tincture or the Philosophers' Stone by the Art and the industry of the Alchemist in the fire; but all these seven metals must be generated in the mountains by the Archeus of the earth.† The

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* Elsewhere Paracelsus states that giants are born from sylphs, and dwarfs from pigmies. Of these monsters are produced, as, for example, nymphs and syrens. Albeit these are rare, they have appeared with sufficient frequency, and in such a marvellous manner, that there can be no doubt of their existence.—*De Nymphis, Pygmiis, Salamandris, etc.* With regard to the generation of homunculi there is also the following passage:—Porro hoc etiam sciendum est, sodomitas hujusomodi sperma quandoque etiam in os ejaculari. Quod si in stomachum tanquam in matricem recipiatur, ex ipso ibi monstrum, aut homunculus, aut simile aliud generatur, ac inde morbi multi, iique difficiles surgunt, tamdiv sævientes, donec generatum excernatur.—*De Homunculis et Monstris.*

† As a sure and fundamental conclusion to those things which have been advanced, let it be notified to those who desire to be acquainted with the true essence and origin of metals, that our metals are nothing else than the most potent and best part of common stones—the spirit, gluten, grease, butter, oil, and fatness of stones, which, while still combined

alchemist will more easily transmute metals than generate or make them. Nevertheless, live Mercury is the mother of all the seven metals, and deserves to be called the Mother of Metals. For it is an open metal and, as it were, contains in itself all the colours which it renders up from itself in the fire; and so also, in an occult manner, it contains in itself all metals which without fire it does not yield up from itself. But the regeneration and renovation of metals takes place thus: As man can return to the womb of his mother, that is, to the earth from which the first man sprang, and thus can be born again anew at the last day, so also all metals can return to quick mercury, can become Mercury, and be regenerated and clarified by fire, if they remain for forty weeks in perpetual heat, like a child in its mother's womb. Now, they are born, however, not as common metals, but as metals which tinge: for if, as has been said, Luna is regenerated, it will afterwards tinge all metals to Luna. So gold tinges other metals to Sol, and in like manner it must be understood of all other metals. Now, when Hermes said that the soul was the only medium which joins the spirit to the body, he had no inadequate conception of the truth. And since Sulphur is that soul, and, like fire, it hastens on and prepares all things, it can also link together the spirit and the body, incorporate and unite them, so that a most noble body shall be produced. Yet it is not common combustible sulphur which is to be esteemed the soul of metals; but that soul is another combustible and corruptible body. It cannot, therefore, be burnt with any fire, since it is itself entirely fire, and, in truth, it is nothing but the Quintessence of Sulphur, which is extracted by the spirit of wine from Reverberated Sulphur, and is ruby coloured and clear as the ruby itself. This is indeed a mighty and excellent arcanum for transmuting white metals, and for coagulating quick mercury into fixed and approved gold. Hold this in commendation as a treasure for making you rich; and you should be contented with this secret alone in the transmutation of metals. Concerning the generation of minerals and semi-metals, no more need be known than we stated at the beginning concerning the metals, namely, that they are produced, in like manner, from those three principles, Mercury, Sulphur, and Salt, though not, like the metals, from these principles in their perfection, but from the more imperfect and weaker Mercury, Sulphur, and Salt, yet still with their distinct colours.

The generation of gems takes place by, and flows out from, the subtlety of the earth, from the clear and crystalline Mercury, Sulphur, and Salt, also

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in the stone, are not good, not pure, not clean, and are altogether wanting in perfection. For this reason they are to be sought, found, and known in stones, and thence, also, must be separated and extracted by pounding and liquefaction. When this has been effected they are no longer stones, but prepared and complete metals, agreeing with the celestial stars; which stones, indeed, are secreted from the terrestrial stars. Furthermore, if anyone desire to investigate and to know minerals and metals, he should clearly realise that they are not always to be sought in the common and familiar mineræ, nor in the depths of mountains, because they are very often found more easily, and in greater abundance, upon the surface of the earth than in its bowels. For this reason, any stone that may offer itself to the eye, whether great or small, rock or flint, should be diligently examined as to its property and nature, for very often a small and despised pebble is of greater value than a cow. So, also, there is common dust and sand which are abounding in Sol and Luna.—*Chirurgia Minor, De Contracturis*, Tract II., *conclusio.*

according to their own distinct colours.* The generation of common stones is from the subtlety of water, by the mucilaginous Mercury, Sulphur, and Salt. For all stones are produced by the mucilage of water, as also pebbles and sand are coagulated from the same source into stones.† This is patent to the eyes: for every stone placed in water soon draws the mucilage to itself. If, now, that mucilaginous matter be taken from such stones and coagulated in a cucurbite, a stone will be produced of the same kind as would of itself be produced and coagulated in the water, but after a long period of time.

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* The generation of gems in Ares occurs after this manner: When the gross genera of stones have been all extracted out of Ares, a certain subtlety remains, more diaphanous in its nature than are other stones, and out of this the Archeus subsequently procreates gems after such a manner that hardness and very great transparency are first prepared. Hence the gems are afterwards developed, each according to its own form and essence. Very great subtlety and artifice are employed over this generation.—*De Elemento Aquæ*, Tract IV., c. 10.

† The body of every kind of stone is sulphur, as that of metals is mercury. The hardness is from salt, and the density from mercury.—*Ibid.*, c. 5.

CONCERNING THE NATURE OF THINGS.

BOOK II.

Concerning the Growth of Natural Things.

IT is clear enough, and well known to everybody, that all natural things grow and mature by warmth and moisture, as is plainly demonstrated by the rain followed up with sunshine. None can deny that the earth is rendered fruitful by the rain, and all must confess that every kind of fruit is ripened by the sun. Since, then, by the Divine institution, this is possible to Nature, who will deny or refuse to believe that man possesses this same power by a prudent and skilful pursuit of the Alchemical Art, so that he shall render the fruitless fruitful, the unripe ripe, and make all increase and grow? The Scripture says that God subjected all created things to man, and handed them over to him as if they were his own property, so that he might use them for his necessity, that he might have dominion over the fishes of the sea, the fowls of the air, and everything on the earth without exception. Wherefore man ought to rejoice because God has illuminated him and endowed him, so that all God's creatures are compelled to obey Him and to be subject to Him, especially all the earth, together with all things which are born, live, and move in it and upon it. Since, then, we see with our eyes, and are taught by daily experience, that the oftener and the more plentifully the rain moistens the earth, and the sun dries it again with its heat and glow, the sooner the fruits of the earth come forth and ripen, while all fruits increase and grow, whatever be the time of year, let none wonder that the alchemist, too, by manifold imbibitions and distillations, can produce the same effect. For what is rain but the imbibition of the earth? What are the heat and glow of the sun other than the sun's process of distillation, which again extracts the humidity? Wherefore I say that it is possible by such co-optation in the middle of winter to produce green herbs, flowers, and fruits, by means of earth and water, from seed and root. Now, if this takes place with herbs and flowers, it will take place in many other similar things too, as, for instance, in all minerals, the imperfect metals whereof can be ripened with mineral water by the industry and art of the skilled alchemist. So, too, can all marchasites, granites, zincs, arsenics, talcs, cachimiæ, bismuths, antimonies, etc., all of which carry with them immature Sol and Luna, be so ripened as to

be made equal to the richest veins of gold and silver, only by such co-optation. So, also, the Elixir and Tinctures of metals are matured and perfected.

Since, therefore, humidity and warmth mature all things and make them grow, let none wonder that, after a long time, in the case of a criminal on the gibbet, the beard, hair, and nails grow ; nor let this be taken for a sign of innocence, as the ignorant read it. It is only natural, and proceeds from natural causes. As long as there is moisture in the body, the nails, beard, and hair grow ; and, what is more, in the case of a man buried in the earth itself, nails, beard, and hair grow up to the second year, or up to the time of the man's decay.

It should be known, too, that many substances grow and increase perpetually in size, weight, and virtue, both in water and on land, in each of which they remain good and effective, such, for example, as metals, marchasites, cachymiae, talcs, granites, antimony, bismuths, gems, pearls, corals, all stones and clays. So also it can be brought about that Sol shall grow and increase in weight and in body, if only it be buried in land looking east, and be constantly fertilised with fresh human urine and pigeons' dung.

It is also possible for gold to be so acted upon by the industry and art of the skilled alchemist that it will grow in a cucurbite with many wonderful branches and leaves, which experiment is very pleasant to behold, and full of marvels. The process is as follows : Let gold be calcined by means of aqua regis so that it becomes a chalky lime ; which place in a cucurbite, pouring in good and fresh aqua regis and water of gradation so that it exceeds four fingers across. Extract it again with the third degree of fire until nothing more ascends. Again pour over it distilled water, and once more extract by distillation as before. Do this until you see the Sol rise in the glass and grow in the form of a tree with many branches and leaves. Thus there is produced from Sol a wonderful and beautiful shrub which alchemists call the Golden Herb, or the Philosophers' Tree. The process is the same with the other metals, save that the calcination may be different, and some other aqua fortis may have to be used. This I leave to your experience. If you are practised in Alchemy you will do what is right in these details.

Know also that any flint may be taken out of river water, placed in a cucurbite, and sprinkled with its own running water until the cucurbite is full. This may again be extracted by distillation, as long as a single drop ascends, until the stone be dry. Let the cucurbite be again filled with this water, and once more extracted. Repeat this until the cucurbite is filled with this stone. In this way, by means of Alchemy, in a few days you will see that a very large stone can be made, such as the Archeus of the waters could scarcely make in many years. If you afterwards break the cucurbite on a stone you will have a flint in the shape of the cucurbite, just as though it had been poured into the glass. Though this may be of no profit to you, still it is a very wonderful thing.

CONCERNING THE NATURE OF THINGS.

BOOK III.

Concerning the Preservation of Natural Things.

IN order that a thing may be preserved and defended from injury, it is necessary that first of all its enemy should be known, so that it may be shielded therefrom, and that it may not be hurt or corrupted by it, in its substance, virtue, force, or in any other way suffer loss. A good deal depends upon this, then, that the enemy of all natural things should be recognised; for who can guard himself against loss and adverse chance if he is ignorant of his enemy? Surely, no one. It is therefore necessary that such enemy should be known. There are many enemies; and it is just as necessary to know the bad as the good. Who, in fact, can know the good without a knowledge of the evil? No one. No one who has never been sick knows how great a treasure health is. Who knows what joy is, that was never sad or sorrowful? And who knows rightly about what God is, who knows nothing about the devil? Wherefore since God has made known to us the enemy of our soul, that is, the devil, He also points out to us the enemy of our life, that is, death, which is the enemy of our body, of our health, the enemy of medicine, and of all natural things. He has made known this enemy to us and also how and by what means we must escape him. For as there is no disease against which there has not been created and discovered a medicine which cures and drives it away, so there is always one thing placed over against another—one water over against another, one stone over against another, one mineral over against another, one poison over against another, one metal over against another—and the same in many other matters, all of which it is not necessary to recount here.

But it ought to be known how, and by what means, each several thing is preserved and guarded from loss: that many things, for instance, have to be kept for a long time in the earth. All roots, especially, remain for a long while in the earth fruitful and uncorrupted. In like manner, herbs and flowers and all fruits keep undecayed and green in water. So also many other fruits, and especially apples, can be preserved in water, and protected from every decay, until new apples are produced.

So also flesh and blood, which very soon putrefy and become rancid, can be kept in cold spring water; and not only so, but by the co-optation of renewed and fresh spring water they can be transmuted into a quintessence,

and conserved for ever from decay and bad odour without any balsam. And not only does this process preserve flesh and blood, but (so to say) it preserves all other kinds of flesh and blood, and especially the body of man, from all decay and from many diseases which arise from decay, better than the common mumia does.* But in order that blood may be preserved of itself from decay and ill odour, and not as a quintessence ; and in order, also, to protect other blood, as aforesaid, you must use this process : Let the blood be separated from its phlegm, which moves of itself, and is driven to the surface. Draw off this water by a dexterous inclination of the vessel, and add to the blood a sufficient quantity of the water of salt, which we teach you in our Chirurgia Magna how to make.† This water at once mingles with the blood, and so conserves the blood that it never putrefies or grows rancid, but remains fresh and exceedingly red after many years, just as well as on the first day ; which, indeed, is a great marvel. But if you do not know how to prepare this water, or have none at hand, pour on a sufficient quantity of the best and most excellent balsam, which produces the same effect. Now this blood is the Balsam of Balsams, and is called the Arcanum of Blood. It is of such great and wonderful virtue as would be incredible were we to mention it. Therefore you will keep this occult, as a great secret in medicine.

In the conservation of metals the first thing to learn is what are their enemies, so that they may be thereby the better kept from loss. The principal enemies of metals, then, are all strong waters ; all aquæ regiæ, all corrosives and salts, shew their hostility in this circumstance, that they mortify all metals, calcine them, corrupt them, and reduce them to nothing. Crude sulphur shews its hostility by its smoke ; for by its smoke it takes away the colour and redness from Venus, and renders it white. From white metals, as Luna, Jupiter, Saturn, and Mars, it takes away their whiteness and reddens them, or induces in them a reddish colour. From gold it takes away the agreeable yellowness and golden tint, renders it black, and makes it as uncomely as possible.

Antimony shews its hostility in this : that it spoils all metals with which it is liquefied in the fire, and with which it is mixed ; it deprives and robs them ; moreover, like the sulphur, it robs metals of their genuine colour and substitutes another.

Quicksilver, on the other hand, exercises a hostile force upon the metals with which it is conjoined, in that it invades and dissolves them so that it makes an amalgam from them. Moreover, its smoke, which we call the soot of Mercury, makes all metals immalleable and fragile ; it calcines them and whitens all red and gold coloured metals. It is the chief enemy of iron and

* According to one explanation : Mumia is man himself. Mumia is balsam, which heals wounds.—*Paramirum – De Origine Morborum*, Lib. II., c. 2. The virtues of all herbs are found in this Mumia.—*De Origine Morborum Invisibilium*, Lib. IV. Whoever seeks opoponax will find it in Mumia (that is, in the Mumia which is man), and so also all other creatures whatsoever.—*Ibid.* Now, this is Mumia : If a man be deprived of life, then his flower bursts forth in potencies and natural arcana. – *Ibid.*

† This process will be found in the second footnote on p. 76 of the present volume.

steel, for if common mercury touches a steel rod, or if the rod be anointed with mercurial oil, it can afterwards be broken like glass and cut off. This is indeed a great secret and must be kept strictly occult. In the same way, too, the magnet should be guarded and kept from Mercury, for it exerts hostility on it as on Mars. For every magnet which common mercury touches, or which is anointed with mercurial oil, or only placed in Mercury, never afterwards attracts iron.* Let no one be surprised at this ; there is a natural cause for it, seeing that Mercury extracts the spirit of iron which the magnet holds latent in itself. Wherefore also the spirit of iron in the magnet attracts the body of Mars to itself; and this happens not only in the magnet but in all other natural things, so that the foreign spirit which is in an alien body, which is not of its own nature, always attracts a body agreeing with its own nature. This should be known not only of the magnet, but of all natural bodies, such as minerals, stones, herbs, roots, men, and animals.

After this it should be known that metals exercise hostility amongst each other, and mutually hate one another from their inborn nature ; as you see in the case of Saturn, which is the principal enemy of Sol, from its congenital nature. It breaks up all the members of gold, renders it deformed, weak, and destroys and corrupts it even to the death, more than it does any other metal. It also hates tin, and is an enemy of all the metals, for it renders them degenerate, unmalleable, hard and unfit, if it be mixed with either of them in fire or flux.

Since, therefore, you have now heard about the enemies of the metals, learn, moreover, about their preservation and conservation, which guard the metals from all loss and corruption, and, in addition, strengthen them in their nature and virtue, while they graduate them more highly in colour. First, then, it ought to be known concerning gold that it cannot be better and more beautifully preserved than in boys' urine, in which has been dissolved sal ammoniac, or in the water of sal ammoniac alone. In these, with time, it acquires such a high grade of colour as cannot be surpassed. Silver cannot be better preserved and conserved than if it be boiled in common water or acetum in which have been dissolved tartar and salt. In this way any old silver, though blackened and stained, is renewed, if it is boiled thus. Of iron and steel the best and most useful conservative and preservative is fresh, not salted, lard from a gelded sow. This protects all iron and steel from rust if they are anointed therewith once every month. In like manner, if iron be liquefied with fixed arsenic, and occasionally reduced to a flux, it can be so renewed and fixed that, like silver, it never rusts. Copper can be conserved and preserved if only it be mixed with sublimated Mercury, or anointed with oil of salt, so

* So, also, it is affirmed that if the magnet be steeped in garlic it will be deprived of its attractive virtue.—*De Morbis Amentium*, c. 5. Should anyone make use of a magnet while he is wearing a sapphire, it will effect nothing till the gem be removed. The same quality seems to reside in carabe, coagulate of gum, resin, and therebotin.—*De Peste*, Lib. II., c. 2.

that for the future it gives forth no vitriol or verdigris, nor does it become of a green colour.

Lead cannot be conserved better than in cold water, and in a damp place, such is its nature. But for the conservation of the magnet nothing is better than filings of iron or steel. If the magnet be placed in these, not only does not its force decrease, but it grows more and more every day.

As to the conservation of salts, and all those substances which are of a salt nature, and are comprised under the name of salt, of which there are more than a hundred,it is well to know that they must be kept in a warm and dry place, and guarded well from the air in wooden chests. They must not be placed on glass, stone, or metal. By these they are dissolved and turn into water and amalgam ; but this does not occur in wood.

Moreover, you should learn the method of conserving certain waters and liquids by means of pressed herbs, roots, and other fruits and growing things, which easily absorb all mustiness and mould just as if a skin were wrapped around them. Let these waters, or other liquids, be placed in a glass vessel, narrow at the top and wider below. Let the vessel be filled to the top and then some drops of olive oil added, so that all the water or liquid may be covered. The oil will float at the top, and, in this way, will protect the liquid or the water a long time from mustiness or mould. No water or liquid, if it be covered with oil, can ever become mouldy or smell badly. In this way also two waters, two liquids, two wines, can be kept separately in one vessel, so that they shall not mix ; and not only two, but three, four, five, or still more, if only oil be between them, for they are separated by the oil as by a wall, which does not suffer them to be conjoined and united. For oil and water are two contraries, and neither can mingle with the other. As the oil does not allow the waters to mix, so, on the other hand, the water prevents the oils from blending.

For the conservation and preservation of cloth and garments from moth, so that they may not eat them or settle in them, nothing is better than mastix, camphor, ambergris, or musk : but the best is civet, which not only preserves from moth, but drives away and puts to flight moths, with other worms, fleas, lice, and bugs.

All timbers can be conserved, as in buildings or bridges, so that they shall never decay, whether they be in water, under water, or out of the water, in the ground, under the ground, or out of the ground, whether exposed to rain or wind, air, snow, or ice, in summer or winter, and moreover, preventing them from decaying or worms breeding in them when felled. The method of conservation in this case is that grand arcanum against all putrefactions, and so remarkable a secret that no other can compare with it. It is none other than the oil of sulphur, the process for making which is as follows :—Let common yellow sulphur be pulverised and placed in a cucurbite. Over it pour as much aqua-fortis as will cover four fingers across. Abstract this by distillation three or four times, the last time until it is completely dry. Let the sulphur which remains at the bottom, and is of a dark reddish colour, be placed in marble or

glass and easily dissolved into an oil. This is a great secret in the conservation of timber so that it may never decay and may be protected from worms. For if sulphur be prepared as aforesaid, and turned into an oil, it afterwards tinges the timber which has been anointed with it so that it can never be obliterated. Many other things, also, can be conserved and preserved from decay in this oil of sulphur, especially ropes and cables in ships and on the masts of ships, in chariots, fishing-nets, birdcatchers' and hunters' snares, and other like things which are being frequently used in water and rain, and would otherwise be liable to decay and break; so also with linen cloths and other similar things.

The conservation of potable things, too, should be noticed, under which we comprise wine, beer, hydromel, vinegar, and milk. If we wish to keep these five unharmed and in their virtue, it is necessary to know their chief enemy. This is none other than unclean women at the time of their monthly courses. They corrupt these things if they handle or have anything to do with them, if they look at them, or breathe on them. The wine is changed and becomes thick, beer and hydromel turn sour, vinegar is weakened and loses its acidity, milk also becomes sour and clotted.

This, therefore, should be well known before anything is said specially about the conservation of one of these things in particular. Moreover, the chief preservative of wine is sulphur and oil of sulphur, by means of which all wine can be preserved for a very long time, so that it neither thickens nor is in any way changed.

The means of conserving beer is by oil of garyophyllon, if a few drops of it are put in, so that one measure has two or three drops. Better still is the oil of benedicta garyophyllata, which preserves beer from acidity. The preservative for hydromel is the oil of sugar, which must be used in the same way as the oil of garyophyllon or the benedicta.

The preservative of vinegar is oil of ginger, and of milk the expressed oil of almonds. These two must be used as described above.

The preservative of cheese is the herb hypericon or perforata, which protects all cheeses from worms. If it be placed against the cheese and touches it, no worm is produced in it, and if some have been already produced, they die and drop out of the cheese.

Honey has no special preservative, only it must be protected from its enemy. Its chief enemy is bread. If ever so small a quantity of bread made from flour be put or fall into it, the whole honey is turned into ants, and perishes entirely.

CONCERNING THE NATURE OF THINGS.

BOOK IV.

Concerning the Life of Natural Things.

NONE can deny that the air gives life to all corporeal and substantial things which are born and generated from the earth. But as to what and of what kind the life of each particular thing is, it should be known that the life of things is none other than a spiritual essence, an invisible and impalpable thing, a spirit and a spiritual thing. On this account there is nothing corporeal but has latent within itself a spirit and life, which, as just now said, is none other than a spiritual thing.* But not only that lives which moves and acts, as men, animals, worms in the earth, birds under the sky, fishes in the sea, but also all corporeal and substantial things. For here we should know that God, at the beginning of the creation of all things, created no body whatever without its own spirit, which spirit it contains after an occult manner within itself. For what is the body without the spirit? Absolutely nothing. So it is that the spirit holds concealed within itself the virtue and power of the thing, and not the body. For in the body is death, and the body is subject to death, and in the body nothing but death must be looked for. For the body can be destroyed and corrupted in various ways, but not the spirit: for it always remains a living spirit, and is bound up with life. It also keeps its own body alive, but in the removal of the body from it, it leaves the body separate and dead, and returns to its own place whence it had come, that is to say, into chaos, and into the air of the higher and lower firmament. Hence it is evident that there are different kinds of spirits, just as there are different kinds of bodies. There are celestial and infernal spirits, human and metallic, the spirits of salts, gems, and marcasites, arsenical spirits, spirits of potables, of roots, of liquids, of flesh, blood, bones, etc. Wherefore you may know that the spirit is in very truth the life and balsam

* Life is a veil or covering which encloses three principles—sulphur, salt, and mercury.—*Paramirum*, Lib. I The life of the body is fire.—*De Ente Astrorum*, c. 6. There is a twofold life in man: there is the life of the soul, which proceeds from the nature of God; but I speak here as a physician, and not as a theologian. There is also a life of the animal kind, which is of air and fire, and the same is domiciled in the body, which is earth and water. So is man dowered with an animal and a sidereal life.—*De Pestilitate*, Tract I. In another sense the life of man is said t be triplex—necrocomic, cagastric, and salnitric. But this has reference to the animal life only—*Liber Azoth*. That which sustains the body is the life, but the life itself is from God, and not from man. This life consists in four things - humours, complexions, natural species, and gifts or virtues. - *De Generatione Hominis*.

of all corporeal things. Now we will go on to its species, and here will describe to you in detail, but as briefly as possible, the life of each natural thing.

The life, then, of all men is none other than a certain astral balsam,* a balsamic impression, a celestial and invisible fire, an included air, and a spirit of salt which tinges. I am unable to name it more clearly, although it could be put forward under many distinctive titles. Since, however, the chief and the best are here pointed out, we will be silent as to the rest and the inferior names.

The life of metals is a latent fatness which they have received from sulphur. This is shewn from their fluxion, because everything which passes into flux in the fire does so on account of its hidden fatness. Unless this were so no metal could be reduced to a fluid state, as we see in the case of iron and steel, which have the least Sulphur and fatness of all the metals, wherefore they are of a drier nature than all the rest of them.

The life of mercury is nothing but inner heat and outer frigidity. That is to say, within it gives heat, but without it causes cold; and in this respect it is aptly to be compared to a garment of skins, which, like mercury, causes both heat and cold. For if a garment of this kind be worn by a man, it warms him and protects him from the cold; but if he wears the hairless part against his naked body, it causes cold, and defends him from excessive heat. So it came about that in very ancient times, and it is even the custom still, that these coats of skin are worn both in summer and in winter, as much against the heat as against the cold; in summer the hairless part is turned within, and the hairy part outside, but in the cold winter season the hairy part is turned within and the hairless part outside. As it is with the garment of skins, so is it with mercury.

The life of sulphur is a combustible, ill-smelling fatness. Whilst it flames and sends forth its evil odour it may be said to live.

The life of all salts is nothing else but a spirit of aqua fortis: for when the water is abstracted from them, that which remains at the bottom is called dead earth.

The life of gems and corals is mere colour, which can be taken from them by spirits of wine. The life of pearls is their brightness, which they lose in their calcination. The life of the magnet is the spirit of iron, which can be extracted and taken away by rectified *vinum ardens* itself, or by spirit of wine.

The life of flints is a mucilaginous matter. The life of marcasites, cachymiæ, talc, cobalt, zinc, granites, zwitter, vismat (rude tin), is a metallic spirit of antimony, which has the power to tinge. Of arsenicals, auripigment, orpiment, realgar, and similar matters, the life is a mineral coagulated poison.

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* The flesh and blood of man are preserved and sustained by a certain balsam. Now, this balsam is the body of salt. So, therefore, by salt is man preserved as by a balsam.—*De Morbis Tartareis*, c. 21. The balsam of man exists alike in all his members, and is specialised therein—in the blood, in the marrow, in the bones, the arteries, etc.—*Chirurgia Magna*, Lib. V.

The life of wavelike substances, that is to say, of the dung of men and animals, is their strong and fœtid smell. When this is lost they are dead.

The life of aromatic substances, to wit, musk, ambergris, civet, and whatever emits a strong, sweet, and pleasant odour, is nothing but that grateful odour itself. If they lose this they are dead and useless.

The life of sweet things, as sugar, honey, manna, fistula cassiæ, and the like, is a subtle sweetness, with the power to tinge; for if that sweetness be taken away by distillation, or sublimation, the things are dead, fatuous, and no longer of any value.

The life of resins, as caraba, turpentine, and gum, is a mucilaginous, glittering fatness. They all give excellent varnish; when they no longer furnish this, and lose their glitter, they are dead.

The life of herbs, roots, apples, and other fruits of this kind, is nothing else than the liquid of the earth, which they spontaneously lose if they are deprived of water and earth.

The life of wood is a certain resin. Any wood that is deprived of resin is unable longer to flourish.

The life of bones is the liquid of mumia. The life of flesh and blood is none other than the spirit of salt, which preserves them from ill odour and decay, and spontaneously, as the water is separated from them.

But concerning the life of the elements there is this to be known. The life of water is its flowing. When it is coagulated by the cold of the firmament and congealed into ice, then it is dead, and all power of doing harm is taken from it, since no one can any longer be drowned in it.

So, too, the life of fire is air, for the air makes the fire blaze more strongly and with greater impetuosity. Some air proceeds from all fire, sufficient to extinguish a candle or to lift a light feather, as is evident to the eyes. All live fire, therefore, if it be shut up or deprived of the power to send forth its air, must be suffocated.

The air lives of itself, and gives life to all other things. The earth, however, is of itself dead; but its own element is its invisible and occult life.

CONCERNING THE NATURE OF THINGS.

BOOK V.

Concerning the Death of Natural Things.

THE death of all natural things is nothing else but an alteration and removal of their powers and virtues, an overthrow of their potencies for evil or for good, an overwhelming and blotting out of their former nature, and the generation of a new and different nature.* For it should be known that many things which in life were good, and had their own virtues, retain little or none of that virtue when they are dead, but appear altogether fatuous and powerless. So, on the other hand, many things in their life are evil, but in death, or after they have been mortified, they display a manifold power and efficacy, and do much good. We could recount many examples of this, but that is altogether foreign to our purpose. Yet, in order that you may see that I do not write from my mere opinion, however plausible, but from my experience, it is well that I should adduce one example with which I will quiet and silence the sophists who say that nothing can be gained from dead things, nor anything ought to be sought or found in them. The cause of this assertion is that they value at nothing the preparations of the alchemists, by which many great secrets of this kind are discovered. For look at Mercury, live and crude sulphur, and crude antimony; as they are brought from the mines, that is, while they are still living, how small is their virtue, how lightly and tardily do they exercise their influence. Indeed, they bring more evil than good, and are rather a poison than a medicine. But if, by the industry of a skilled alchemist, they are corrupted into their first substance and prudently prepared (that is, if the Mercury be coagulated, precipitated, sublimated, resolved, and turned into oil; the sulphur be sublimated, calcined, reverberated and turned into oil; and, in like manner, Venus be sublimated, calcined, reverberated, and turned into oil), you see what usefulness, what power and virtue, and what rapid efficiency they afford and display, so that none can fully speak or write of it. For their manifold virtues are not to be investigated, nor can any one search them out. Every alchemist, therefore, and every faithful

* Death is the mother of tinctures, for tinctures proceed from the mortification of the body, in which the colours are contained, even as in a seed there are green, yellow, black, blue, and purple colours, which are, nevertheless, invisible until the seed has perished in the earth, and till the sun has prepared and produced them, so that what was first hidden from the senses is now revealed to them.—*De Icteritiis.*

physician, ought to seek into these three things during his whole life, and even up to his death should play with them and find his pastime in them. Most assuredly they will nobly compensate him for all his labour, study, and expense.

But let us come to particulars, and specially describe the death and mortification of each natural thing, what its death is, and in what way it is mortified. First of all, then, with regard to the death of man, it should be understood that, beyond a doubt, it is nothing else but the end of his day's work, the taking away his air, the evanescence of his balsam, the extinction of his natural light, and the entire separation of the three substances, body, soul, and spirit, and the return to his mother's womb. For since the natural earth-born man comes from the earth, the earth, too, will be his mother, into which he must return, and therein lose his earthborn natural flesh, so that at the last day he may be regenerated in a new, a heavenly, and purified flesh, as Christ said to Nicodemus when he came to Him by night. For, as we said, these words apply to regeneration.

But the death or mortification of the metals is the removal of their bodily structure, and of the sulphurous fatness which can be removed from them in many ways, as by calcination, reverberation, resolution, cementation, and sublimation. But the calcination of metals is not of a single kind only. For one is produced by salt, one by mercury, one by strong waters, one by the *fuligo mercurii* and quick mercury. Calcination by salt is when the metal is formed into very thin plates, and stratified and cemented with salt. Calcination by sulphur is when the metal is formed into plates, stratified and reverberated with sulphur. Calcination by strong waters is when the metal is granulated, resolved in aqua fortis, and precipitated therein. Calcination by the *fuligo mercurii* is brought about thus: Let the metal be formed into plates; let the mercury be put into an earthen vessel, narrow at the top but broad below, and afterwards set on a moderate coal fire, which should be blown a little until the mercury begins to smoke, and a white cloud issues from the mouth of the vessel. Then let the plated metal be placed on the orifice of the vessel. Thus the common mercury penetrates the metal and renders it as friable as a lump of coal. Calcination by quick mercury is when the metal is cleft into small particles, made into plates, or granulated, and formed into amalgam with mercury. Afterwards let the mercury be pressed out through a skin, and the metal will remain within the skin in the form of lime or sand. But beyond these mortifications of the metals, destructions and whitenings of their life, you must know that there are many other mortifications of the metals. For beyond the fact that all rusting of iron and steel is a death, there are others which are to be esteemed as more important. For instance, it should be known that all vitriol, or even burnt brass, is mortified copper; all precipitated, sublimated, calcined cinnabar is mortified mercury; all white lead, red lead, or yellow lead are mortified lead; all lazurius is mortified silver. So, also, all Sol, from which its tincture, quintessence, resin, crocus, or sulphur has been withdrawn, is dead,

because it no longer has the form of gold, but is a white metal like fixed silver.

But now let us go on to lay before you by what means the mortification of the metals is brought about. First of all, it should be known concerning iron that it can be mortified and reduced to a crocus in the following way: Form very thin plates of steel, beat them red hot, and then extinguish them in vinegar made from wine. Keep on doing this until you see the vinegar has become very red. When you have enough of this red vinegar, pour it all out, and distil therefrom the moisture of the vinegar. Coagulate the residuum into a dry powder. This is the most excellent Crocus of Mars. There is, however, another way of making the Crocus of Mars which partly surpasses the former, and is carried out with much less expense and labour, thus: Stratify very thin plates of steel with equal quantities of sulphur and tartar. Afterwards reverberate. This produces the most beautiful crocus, which should be taken from the plates.

In the same way you should be informed that if any plate of iron or steel be smeared over with aqua fortis, it renders also a beautiful crocus. Such is the result, too, with oil of vitriol, water of salt, water of alum, water of sal ammoniac, water of salt nitre, sublimated mercury, all of which mortify iron, and reduce it to a crocus; but none of these methods is to be compared with the two mentioned above; for they can only be used in Alchemy and not in medicine; so use in preference the first two methods, and avoid the rest.

The mortification of copper, to reduce it to vitriol, verdigris, or burnt brass, can also be accomplished in various ways; and there are various processes with this metal, too, but one is better and more useful than another. Wherefore it will be well to make a note of the best and most useful, and to say nothing about the others. The best, easiest, and most reliable method of reducing copper to vitriol is as follows: Let plates of copper be smeared with water of salt or of saltpetre, and hung or exposed in the air until the plates begin to become green. Wash off this greenness with clear spring water, dry the plates with a rag; again smear the plates with water of salt or saltpetre, and again proceed as before, repeating the process until the water becomes quite green, or sends forth much vitriol to the surface. Then remove the water by tilting the vessel, or by drawing it off, and you will have an excellent medicinal vitriol. For Alchemy, there is no more beautiful, noble, or better vitriol than that which is made by aqua fortis, or aqua regis, or water of sal armoniac. Proceed thus: Let plates of copper be smeared with one of the aforesaid waters, and as soon as the greenness has been extracted, and the plates have been dried, let the greenness be taken off with a hare's foot, or by some other means at pleasure, as white lead is scraped off leaden plates. Let them be again smeared as before, until the plates are entirely consumed, and thence is produced a very beautiful vitriol, such as you cannot fail to admire.

Water of saltpetre is made thus: Purify saltpetre, liquefy and pulverise it.

Afterwards dissolve it by itself in a vessel with boiling water. Thus you have water of saltpetre. Water of sal ammoniac is made as follows: Calcine sal ammoniac and resolve it in a case on marble. This is water of sal ammoniac.

In order to make verdigris from copper there are several ways not necessary to recount here. We will therefore describe two only, with a two-fold method of preparation, one for Medicine and the other for Alchemy. The verdigris used in medicine admits of the ensuing process: Take plates of copper, and smear them with the following compound: Take equal quantities of honey and vinegar, with a sufficient quantity of salt to make the three together the consistence of thick paste. Mix thoroughly, and afterwards put in a reverberatory, or in a potter's furnace, for the same time as the potter bakes his vessels, and you will see a black substance adhering to the plates. Do not let this circumstance cause you any anxiety or detain you at all; for if you suspend or expose those plates in the open air, in a few days the substance will turn green, and will become excellent verdigris, which may be called the balsam of copper, and is highly esteemed by all physicians. And this need not cause surprise, because the verdigris first becomes green in the air, and because the air has the power of transmuting a black colour into such a beautiful green. For here it should be known that, as daily experience in alchemy proves, every dead earth or *caput mortuum*, as soon as ever it comes out of the fire into the air, immediately acquires another colour, and loses its own colour which it had assumed in the fire. The changes of these colours are very diversified. According to the material such are the colours produced, though, for the most part, they flow from the blackness of dead earth. You who are skilled in Alchemy see that every dead earth, flux of powder, or of aqua fortis, comes black from the fire, and the more ingredients there are in it the more varied are the colours displayed in the air. Sometimes they only appear red, as vitriol makes them; sometimes only yellow, white, green, cerulean; sometimes mingled, as in the rainbow or the peacock's tail. All these colours display themselves after death, and as a consequence of death. For in the death of all natural things new colours appear, and they are changed from their first colour into another, each according to its own nature and properties. Moreover, we will say about verdigris that which we dedicate to Alchemy. The process of its preparation is as follows: Form very thin plates of copper, which stratify on a large tile with equal portions of sulphur and tartar, pounded and mixed. Reverberate for twenty-four hours with a strong fire, taking care that the copper plates do not melt. Then take them out; break the tile; expose the plates to the air, with the matter which adheres to them, for a few days, and the matter on the plates will be converted into most beautiful verdigris, which in all strong waters, in waters of gradations, in cements and colourings of gold, tinges gold and silver with a deep colour.

But in order that copper may become *æs ustum*, which is also called the crocus of copper, the following process must be adopted: let copper be formed

into plates, smeared with salt reduced into a paste with the best vinegar, then put on a large tile, placed in a blast furnace, and for a quarter of an hour burnt with a strong fire, but so that the plates may not melt. Let these plates, while still glowing, be extinguished in vinegar wherein sal ammoniac has been dissolved—half an ounce in a pound of vinegar. Let the plates be again heated, and extinguished as before; but continually scrape off into vinegar the scales which adhere to the plates after they have been extinguished, or else knock them off by beating the plates, or in any way you can. Keep doing this until the plates of copper are nearly consumed. Then let the vinegar be extracted by distillation, or let it evaporate in an open vessel, and let it coagulate into a very hard stone. Thus you will have the crocus of copper used in Alchemy. Many persons commonly make *æs ustum*, or the crocus of Venus, from Venus by the extraction of alcohol (others of *vinum aceti*), like the crocus of Mars; but I much prefer this method.

The mortification of Mercury, in order that it may be sublimated, is brought about by vitriol and salt. When it is mixed with these two and then sublimated it becomes as hard as crystal and as white as snow. In order that Mercury may be reduced to a precipitate,* nothing more need be done than calcine it in the best aqua fortis; then let the graduated aqua fortis be extracted from it five times, more or less, until the precipitate acquires a beautiful red colour. Sweeten this precipitate as much as possible; and finally distil the rectified wine from it seven or nine times, or as often as necessary, until it burns in the fire and does not escape. Then you have the diaphoretic precipitate of Mercury.

Moreover, here should be noted a great secret concerning precipitated Mercury. If, after its colouration, it be sweetened with water of salt of tartar, by distilling it until the water no longer ascends acid, but is altogether sweet, then you will have the precipitate as sweet as sugar or honey. This is the principal arcanum for all wounds and ulcers and the Gallic disease, insomuch that no physician need wish for better; and it, moreover, brightens up despondent alchemists. For it is an augmentation of Sol, it enters into the composition of Sol, and by it gold is rendered constant and good. Although, then, much labour and toil may be required for this precipitate, it compensates for these and returns to you what you have spent. Moreover, you get sufficient gain from it—more than you could compass by the highest artifice of any kind. You ought, therefore, to rejoice over it, and to thank God and me

* It is also stated that there is nothing in medicine to compare with precipitated mercury for the cure of icteritia.—*Fragmenta Medica*, s. v. *Annotationes in Lib. de Icteritiis.* The medical preparation of the precipitate of mercury as a healing unguent has been boastfully claimed to their own credit by many persons, though they are all filched from the writings of the ancient artists and Spagyrists. Vigo was not free from the disgrace of this falsehood. Precipitated mercury is certainly an ancient remedy, but has lain hidden for a long time by the perfidy of physicians. All cavernous ulcers (except those of the eating and spreading kind) are completely cured by its use. But experience teaches us that the oil of argent vive, when outwardly applied, has much greater efficacy.—*De Tumoribus, etc., Morbi Gallici*, Lib. X. The bloodlike redness of the precipitate of mercury has caused it to be ignorantly confused with the ruddy powder into which the sweet balsam of mercury is reduced when it is prepared without sublimation or calcination by means of the water of eggs.—*Ibid.* Precipitated mercury of the metals is the reduction of the metals into their first matter, which afterwards is deposited below.—*Chirurgia Magna, De Impostumis in Morbo Gallico*, Lib. II.

for it. But in order that Mercury may be calcined, I have already said that this must be done in sharp aqua fortis, which must be abstracted by distillation, and the precipitation is made. But in order that Mercury may be reduced to cinnabar,* you must first of all mortify it, and liquefy it, with salt and yellow sulphur. Reduce it to a white powder, then put it in a cucurbite; place an aludel above, and sublimate with great fluxion, as is customary. Thus the cinnabar ascends into the aludel and adheres to it, as hard as hæmatite.

The mortification of lead, in order that it may be reduced to white lead, is two-fold, one for Medicine, the other for Alchemy. The preparation of cerussa for Medicine is as follows: Suspend plates of lead in an unglazed vessel over strong vinegar made from wine, the vessel being well closed so that no spirits may escape. Place the vessel in warm ashes, or, in winter, behind the fire. Then, after ten or fourteen days, you will find the very best cerussa adhering to the plates. Scrape this off with a hare's foot, and replace the plate over the vinegar until you have sufficient cerussa. The other preparation of cerussa for Alchemy is like the former, save that a quantity of the best sal ammoniac must be dissolved in the vinegar. In this way you will have a very beautiful cerussa, most subtle for purging tin or lead, or for removing whiteness from copper. But if we wish to make red lead out of the lead, it must first be calcined to ashes, and afterwards burnt laterally in a glazed jar, stirring it continually with an iron wire until it grows red. This minium is at once the best and the most valuable, and should be used in Medicine as well as in Alchemy. The other, which dealers sell in the shops, is of no use. It is made up only of the ashes which remain in the liquefaction of lead ore, and the potters buy it for encrusting vessels. Such minium is useful only for pictures, but neither for Medicine nor for Alchemy.

In order to reduce lead to a yellow colour a process is required not altogether unlike the preparation of minium. Here, too, the lead must be calcined with salt, and reduced to ashes. Afterwards it must be stirred continually with iron in one of the wide dishes used by those who test minerals, over a moderate coal fire, careful watch being kept lest the heat should be too great or the stirring neglected. Otherwise it would melt and produce yellow glass. In this way you will have excellent yellow lead.

The mortification of silver so that lazurium, or some similar substance, may be produced from it, is brought about as follows: Let Luna be made into plates, mixed with Mercury, and suspended in a glazed jar over the best vinegar in which auratæ have been previously boiled. Afterwards dissolve in it sal ammoniac and calcined tartar. In all other particulars proceed as directed in the case of cerussa. Then, after fourteen days, you will have the most precious and beautiful lazurium adhering to the silver plates, which you will wipe off with a hare's foot.

* The physicians of Montepessulano and Salerno committed the error of supposing that cinnabar was different from mercury, when it is clear that they are the same.—*De Tumoribus, etc., Morbi Gallici*, Lib. I., c. 8. Cinnabar i extracted from Saturn and Mars by means of mercury.—*Ibid.*, Lib. III., c. 7.

We do not deem it necessary here to repeat the method of mortifying gold so that it may be reduced to its arcana, as, for instance, to tincture, quintessence, resin, crocus, vitriol, and sulphur. These preparations are manifold, and for the most part we have already given such secrets in other books, as the extraction of the Tincture of Sol, the Quintessence of Sol, the Mercury of Sol, Sol Potabilis, the resin of Sol, the Crocus of Sol. These have been given in the Archidoxa and elsewhere. But the secrets omitted there we will impart here. These concern the vitriol of Sol* and the sulphur of Sol, which are by no means the least among such secrets, and, indeed, ought to delight every physician. In order to extract vitriol from Sol, proceed thus: Take two or three marks of pure gold, which form into plates and suspend above boys' urine, mixed with grape-berries, in a wide glass cucurbite closely sealed at the top. Bury this in a glowing heap of grape-berries, as they are taken from the wine-press, and let it stand there for a fortnight or three weeks. Then open it, and you will find a most subtle colour, which is vitriol of Sol, adhering to the plates of Sol. Remove this with a hare's foot, as you have been told in the case of the other metals—the crocus of Mars from the plates of iron, the vitriol of Venus and verdigris from the plates of copper, the cerussa from the plates of Saturn, the lazurium from the plates of Luna—all these being comprised under one process, but not with the same preparation. When, therefore, you have enough of this vitriol of Sol, boil it well in distilled rain water, stirring it continually with some sort of spatula. Then the sulphur of gold rises up to the surface like grease, which remove with a spoon. So also proceed with other vitriol. After the sulphur is taken away, evaporate that rain water to perfect dryness, and the vitriol of Sol will remain at the bottom. This you can easily resolve on marble in a damp place. In these two arcana, that is to say, the vitriol of gold and the sulphur of gold, a diaphoretic virtue is latent. However, we will not describe those virtues here, because we have sufficiently indicated them in the book on Metallic Diseases and elsewhere.

The mortification of sulphur consists in taking away its combustible and fœtid fatness, and reducing it to a fixed substance. This is accomplished in the following way: Take common yellow sulphur, reduced to a fine powder, and abstract from it the very acrid aqua fortis by a threefold distillation. Afterwards sweeten the sulphur which remains at the bottom, and is of a black colour, with sweet water, repeating the process of distillation continually until nothing but sweet water proceeds from it and there is no more smell of sulphur. Reverberate this sulphur in a closed reverberatory, as in the case of antimony. Then it will become, at first white, afterwards, yellow; thirdly, red

* Artificial acids are from the minerals of metals and cognate substances. But note here that what is usually called vitriolated acid is really vitriolated copper of Venus. For copper is vitriol. If, therefore, the acidity be extracted from copper, then he who uses it digests copper. It is the same with all the other vitriolates of metals. . . . In all metals there are vitriolated acids, except in gold, which does not know vitriol.—*De Morbis Tartareis*, c. 16.

as cinnabar. When you have it in that form you ought to rejoice; for it is the beginning of wealth for you. This reverberated sulphur tinges any silver very deeply so as to turn it into most precious gold, and the human body it tinges into its most perfect condition of health. Of so great virtue is this reverberated and fixed sulphur.

The mortification of all salts, and whatever is of a salt nature, is the removal and distillation of their watery and oleaginous part, and besides of the spirit of salt; for if these are taken away, they are called afterwards dead earth, or *caput mortuum*.

The mortification of gems and corals is that they shall be calcined, sublimated, and dissolved into a liquid, as the crystal. The mortification of pearls is that they be calcined and resolved in sharp vinegar in the form of milk.

The mortification of the magnet is that it be smeared with oil of mercury or touched by common mercury. Afterwards it attracts no iron.

The mortification of flints and stones is calcination.

The mortification of marcasites, cachymiæ, talc, cobalt, zinc, granites, zwitter, vismut, and antimony, is sublimation, that is, their being sublimated with salt and vitriol. Then their life, which is the metallic spirit, ascends with the spirit of salt. Let whatever remains at the bottom of the sublimatory be washed, that the salt may be removed from it, and you will have dead earth wherein is no virtue.

The mortification of arsenicals, auripigment, orpiment, realgar, etc., is when they are made fluid with salt nitre, are turned to oil or liquid on marble, and fixed.

The mortification of undulous things is a coagulation of the air.

The mortification of aromatic substances is the removal of their good odour.

The mortification of sweet things is that they shall be sublimated with corrosives and distilled.

The mortification of carabæ, resins, turpentine, and gum is their being reduced to oil or varnish.

The mortification of herbs, roots, and the like is that their oil and water shall be distilled from them, the liquid squeezed out in a press, and afterwards the alkali extracted.

The mortification of woods is their being turned into charcoal or ashes.

The mortification of bones is their calcination.

The mortification of flesh and blood is the removal of the spirit of salt.

The mortification of water is produced by fire: for the heat of fire dries up and consumes all water. So the mortification of fire is by water; for the water extinguishes the fire and takes away from it its force and effectiveness.

Thus you are sufficiently informed, in few words, how death is latent in all natural things: how they are mortified and reduced to another form and nature, as also what virtues flow from them. Whatever else is necessary to say we will set down in our book concerning the Resuscitation of Natural Things.

CONCERNING THE NATURE OF THINGS.

BOOK THE SIXTH.

Concerning the Resuscitation of Natural Things.

THE resuscitation and reduction of natural things is not the least important in the nature of things, but a profound and great secret, rather divine and angelic than human and natural. I would, however, on this point be understood with the greatest discrimination, and in no other way than according to my fixed opinion, as Nature daily and clearly points out and experience proves; so that I may not be exposed to the lies and misrepresentations of my enemies the quack doctors (by whom I am constantly ill judged), as if I myself pretended to usurp some divine power, or to attribute that same to Nature which she never claims. Therefore, at this point, the most careful observation is necessary, since death is twofold, that is to say, violent or spontaneous. From the one, a thing can be resuscitated but not from the other. Do not, then, believe the sophists when they tell you that a thing once dead or mortified cannot be resuscitated, and when they make light of resuscitation and restoration; for their mistake is great. It is indeed true that whatever perishes by its own natural death, or whatever mortifies by Nature according to its own predestination, God alone can resuscitate, or that it must be done by His divine command. So whatever Nature consumes man cannot restore. But whatever man destroys man can restore, and break again when restored. Beyond this man by his condition has no power, and if any one strove to do more he would be arrogating to himself the power of God, and yet would labour in vain and be confounded, unless God were with him, or he had such faith that he could remove mountains. To such a man this, and still greater things, would be possible, since Scripture says, for Christ Himself has said—"If ye have faith as a grain of mustard-seed, and say to this mountain: Depart and place yourself yonder, it would do so and place itself there; and all things shall be possible, and nothing impossible, to you."

But let us return to our proposition. What is the difference between dying and being mortified, and from which of these conditions is resuscitation possible? The matter is to be understood thus. Whatever dies by its own nature has its end according to predestination, and as the pleasure and

dispensation of God arranges. But this, too, happens from different diseases and accidents, and herefrom there is no resuscitation, nor is there any preservative which can be used against predestination and the cognate end of life. But what is mortified can be resuscitated and revivified, as may be proved by many arguments which we will set down at the end of this book. So, then, there is the greatest difference between dying and mortifying, nor should it be thought that these are only two names for one thing. In very deed these differ as widely as possible. Examine the case of a man who has died by a natural and predestined death. What further good or use is there in him? None. Let him be cast to the worms. But the case is not the same with a man who has been slain with a sword or has died some violent death. The whole of his body is useful and good, and can be fashioned into the most valuable mumia. For though the spirit of life has gone forth from such a body, still the balsam remains, in which life is latent, which also, indeed, as a balsam conserves other human bodies. So, too, in the instance of metals you see that when a metal has a tendency to die it begins to be affected with rust, and that which has been so affected is dead; and when the whole of the metal is consumed with rust the whole is dead, and such rust can never be brought back to be a metal, but is mere ashes and no metal. It is dead, and death is in itself: nor has it any longer the balsam of life, but has perished in itself.

The lime and the ashes of metals also are two-fold, and there is the greatest difference between these two. For the one can be revived and brought back to be a metal, but not so the other. One is volatile, the other is fixed. One is dead, the other is mortified. The ash is volatile and cannot be brought back to be a metal, but only to glass or scoriæ. But the lime of metals is fixed and can be brought back again into its own metal. If you would understand the difference and its cause, know that in the ash there is less fatness and more dryness than in the lime, and it is this which gives the fluxion. The lime is fatter and more moist than the ash, and still retains its resin and its fluxion, and more especially does it retain the salt which of its own special nature is capable of flux, and also makes all metals pass into flux, thereby reducing them. Hence it follows with the ashes of metals that they cannot be brought back into metals. The salt must be extracted; then they are perfectly volatile. This is the chief point, and must be very carefully noted, since no little depends upon it. Among sham physicians a vast error is prevalent. In place of Sol Potabilis, the Quintessence of gold, the Tincture of gold, and so on, they have palmed off on men a leprous Calx of Sol, not considering the difference or the evils resulting therefrom. For two notable and necessary facts must here be observed, namely, that either calcined or pulverised Sol, when given to men, is congregated into one mass in the bowels, or passes out *per anum* with the dung, and so is vainly and uselessly taken; or else by the great internal heat of the body it is reduced, so that it incrusts and clogs the bowels, whence ensue many and various diseases, and at last even death.

And as with Sol, so also in the case of other metals, you should take no metallic arcanum or medicament into the body unless it shall have first been rendered volatile, so that it cannot be brought back to its metallic condition. Wherefore the first step and beginning of preparing Aurum Potabile is this; afterwards such a volatile substance can be dissolved by spirit of wine, so that both ascend together, becoming volatile and inseparable. Just as you prepare gold, in the same way you prepare potable Luna, Venus, Mars, Jupiter, Saturn, and Mercury.

But to return to our proposition, and to prove by illustrations and by adequate reasons that mortified things are not dead and compelled to continue in death, but can be brought back and resuscitated and vitalised by man, according to natural guidance and rule. You see this in the case of lions, who are all born dead, and are first vitalised by the horrible noise of their parents, just as a sleeping person is awakened by a shout. So the lions are stirred up ; not that they are sleeping in the same way—for one who sleeps a natural sleep would necessarily wake—but this is not the case with lions. Unless they were stirred up with this noise they would remain dead, and life would never be found in them. Hence it is understood that they acquire their life and are vitalised by that noise. You see the same thing in all animals, except those which are produced from putrefaction, like flies, which, if they are drowned in water so that no life could be discerned in them, and were so left, would continue dead, and never would revive of themselves. But if they are sprinkled with salt and placed in the warm sun, or behind a heated furnace, they recover their former life, and this is their resuscitation. If this were not done they would remain dead. So you see in the case of the serpent. If it be cut in pieces, and these pieces be put in a cucurbite, and putrefied in a *venter equinus*, the whole serpent will revive in the glass in the form of small worms or the spawn of fishes. Now, if these little worms are—as they ought to be—brought out by putrefaction and nourished, more than a hundred serpents will be produced from the one, any single serpent being as big as the original one. This can be accomplished by putrefaction alone. And just as with the serpent, so many animals can be resuscitated, recalled, and restored. By this process, with the aid of nigromancy, Hermes and Virgil endeavoured to renovate and resuscitate themselves after death, and to be born again as infants, but the experiment did not turn out according to their intention and it was unsuccessful.

Let us, however, pass by these examples, and come to the practical method of resuscitation and restoration. It is advisable to begin with metals, because metallic bodies more frequently resemble human bodies. Know, then, that the resuscitation and renovation of metals are twofold : one brings back calcined metals by a process of reduction to their original metallic body ; the other reduces metals to their first matter. The former is a reduction to *argentum vivum*, and such, too, is the latter process. Calcine a metal by means

of the *fuligo Mercurii.* Put this calx and a sufficient quantity of the quicksilver into a sublimatory, and let them stand for some time, until the two are coagulated into one amalgam. Then, by means of sublimation, elevate the Mercury from the calx. When elevated, pound it again with the metallic calx, and sublimate as before. Repeat this until the metallic calx liquefies over a candle, like wax or ice, and the thing is then done. Let this metal be placed in digestion for such time as may be required, and the whole will be changed into *Mercurius vivus*, that is, into its first matter. This is called the Philosophers' Mercurius of Metals. Many alchemists have sought it, but few have found it. So is now prepared *Mercurius vivus* from all metals, namely, Mercurius of Gold, Luna, Venus, Mars, Jupiter, Saturn.

The resuscitation or restoration of calcined Mercury is produced by distillation in retorts. For only *Mercurius vivus* ascends into the cold water, and the ashes of Saturn, Venus, or sulphur are left. But the resuscitation and restoration of sublimed Mercury is brought about in hot water. It is necessary, however, that it should first of all be very minutely pounded, so that the boiling water may resolve from it the spirit of salt and of vitriol, which it raises up with itself in the process of sublimation, and the *Mercurius vivus* runs together at the bottom of the water. If, now, such *Mercurius vivus* be sublimated anew with fresh salt and vitriol, and again be resuscitated in boiling water, and if this be repeated seven or nine times, it will be impossible to purify and renovate it more effectually. Preserve this as a great secret in Alchemy and Medicine, and rejoice over it exceedingly; for in this way all the impurity and blackness and poisonous nature are taken away from Mercury. The resuscitation, restoration, and renovation of Mercury cannot be accomplished without sublimation; for unless after calcination it be sublimated it will never be revivified. Sublimate it, therefore, and afterwards reduce it as you would any other sublimated substance.

The resuscitation of cinnabar, lazurium, aurum musicum, or precipitated gold, in order that they may be revived into *Mercurius vivus*, is effected as follows: Take any one of these substances, pound it very fine in a marble mortar, and make it into a paste with white of eggs and smegma. Then make pills, the size of a nut, which place in a strong earthenware cucurbite. At its orifice arrange an iron plate which has several little holes, and let it be fastened with lute. Distil by descent over a strong fire, so that it may fall into cold water, and again you will have *Mercurius vivus.*

The resuscitation and restoration of wood is difficult and arduous; possible, indeed, but not to be accomplished without exceptional skill and industry. The following is the method of its revival: Take wood which has been first of all carbon, then ash, and place it in a cucurbite with the resin, liquid, and oil of its tree, the same weight of each. Let them be mixed and liquefied over a gentle fire. Then there will be produced a mucilaginous matter, and so you will have the three principles together from which all things are born and generated, namely, phlegma, fat, and ash. The phlegma is

Mercurius, the fat is Sulphur, and the ash is Salt. For that which smokes and evaporates over the fire is Mercury; what flames and is burnt is Sulphur; and all ash is Salt. Now, when you you have these three principles together, place them in a *venter equinus*, and putrefy for the time required by each respectively. If afterwards that matter be buried, or poured into a rich soil, you will see it begin to revive, and a tree or a little log will be produced from it, which, indeed, is in its nature much higher than the original one.

This is really wood, and is called resuscitated, renewed, and restored wood. It was from the beginning wood, but mortified, destroyed, and reduced to coals, to ashes—to nothingness; and yet from that nothingness it is made something, and is reborn. Truly in the light of Nature this is a great mystery, that a thing which had altogether lost its form, and had been reduced to nothingness, recovers that form and becomes something from nothing—something which afterwards is much nobler in its virtue and its efficacy than it had been at first.

But, in order that we may speak generally concerning the resuscitation and restoration of natural things, this should be understood as the principal foundation—that to each thing may be again conceded that which had been taken from it and separated in mortification. It is difficult to explain this specifically here; so we will conclude this book, and in the following book make these things more clear with regard to the transmutations of natural things.

CONCERNING THE NATURE OF THINGS.

BOOK VII.

Concerning the Transmutation of Natural Objects.

IF we are to write concerning the transmutation of all natural objects, it is just and necessary that, in the first place and before all else, we should point out what transmutation is; in the second place, what are the successive steps thereto; and, thirdly, by what means, and in what manner, it is brought about. Transmutation, then, takes place when an object loses its own form, and is so changed that it bears no resemblance to its anterior shape, but assumes another guise, another essence, another colour, another virtue, another nature or set of properties: as if a metal becomes glass or stone; if stone or wood becomes coal; if clay becomes stone and slate; hide, glue; rag, paper; and many such things. All these are transmutations of natural objects. After this it is most necessary to know the steps to transmutation, how many there are. There are not more than seven. For although some persons reckon a greater number, there are, of a truth, only seven principal steps; the rest which may be included among the steps are comprised in these seven. They are the following:

Calcination, Sublimation, Solution, Putrefaction, Distillation, Coagulation, Tincture.

If anyone ascends that ladder, he will arrive at so wonderful a place that he will see and experience many secrets in the transmutation of natural objects.

The first step, then, is Calcination,* under which are comprised Reverberation and Cementation. Among these three there is little difference so far as relates to Calcination. Here, therefore, Calcination is the principal step, for by Reverberation and Cementation many corporeal objects are calcined and reduced to ashes, especially metals. What is calcined is not on that account reverberated or cemented. By Calcination all metals, minerals, stones, glasses, and all corporeal objects, become carbon and ashes; and this is done in a naked fire, strong, and exposed to the air. By means of this all

* One of the *Fragmenta Medica* contained in the first volume of the Geneva folio, when explaining the process of calcination from the standpoint of Hermetic Medicine, observes that it is eminently necessary for the physician who concerns himself with Alchemy to understand calcination and the virtue which resides therein.

tenacious, soft, and fat earth is hardened into stone ; but all stones are reduced to lime, as we see in the kiln of the lime burner and the potter respectively.

Sublimation* is the second step, also very important for the transmutation of many natural objects. Under this are included Exaltation, Elevation, and Fixation† ; and it is not altogether unlike Distillation. For, as from all phlegmatic and watery objects, water ascends in distillation, and is separated from its body, so, in the process of Sublimation, in dry substances such as minerals, the spiritual is raised from the corporeal, subtilised, and the pure separated from the impure. For in Sublimation many excellent virtues and wonderful qualities are found in minerals, and many things are fixed and become permanent, so that they remain in the fire in the following way : Let the body which is sublimated be ground again and mixed with its own dregs. Let it be again sublimated as before, and let this be repeated until it sublimates no longer, but all remains in the bottom and is fixed. Thus it will afterwards become a stone and an oil when and as often as you wish. For if, having refrigerated it, you put it in the air, or in a glass vessel, it is there immediately resolved into an oil. If you once more put it in the fire it is again coagulated into a stone, which is of great and wonderful powers. But this consider a great secret and mystery of Nature, and do not disclose it to sophists. Moreover, as in Sublimation many corrosives become sweet by the conjunction of the two natures, so, on the other hand, many sweet substances become sour or bitter ; whilst many bitter things are made sweet as sugar. Here it should be remarked, too, that every metal which is brought to a state of Sublimation by means of sal ammoniac may afterwards be dissolved into an oil in the cold, or in the air, and, contrariwise, may be coagulated to a stone in the fire. This is one of the greatest and most complete transmutations in all natural objects, namely, to transmute a metal into a stone.

The third step is Solution, under which term are comprised Dissolution and Resolution. This step frequently follows after Sublimation and Distillation, as, for instance, when you dissolve the matter which remains at the bottom. Solution, however, is twofold : one by cold, another by heat ; one out of the fire, the other in the fire. The cold process of Solution dissolves all salts, corrosives, and calcined bodies. Whatever salt and corrosive quality there may be it resolves into an oil, a liquid, or water ; and this takes place in a damp and cold chamber, or otherwise in the air only, in marble or glass. For everything that is dissolved in the cold contains the sharp spirit of salt, which it often acquires and assumes in Sublimation or Distillation. And everything which is dissolved in the cold or in the air is again by the heat of fire changed

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* By sublimation the lower minerals are separated from those elements which are the source of their poverty and baseness, but in addition to this, the process has many other virtues. For example, the sublimation of quicksilver has this operation, that even the air in its vicinity has a recreative effect. For in the air permeated by mercury all the virtues of mercury are present. In like manner, the sublimation of arsenic releases a fervid spirit into the atmosphere which cures quartan fever and other acute diseases.—*De Morbis Metallicis*, Tract III., c. 5.

† Exaltation, conjunction, opposition, and kindred processes are not materially performed, but after a mode which is altogether spiritual.—*Paramirum*, Tract III., c. 6.

into dust or stone. But the Solution of heat dissolves all fat and sulphurous bodies ; and whatever the heat of fire dissolves this the cold coagulates into a mass, and whatever the heat coagulates, this the air and the cold again dissolve. This also should be known, that whatever the air or the cold chamber dissolves, is of great dryness, and holds concealed within itself a corrosive fire. So whatever is dissolved in fire, and by its heat, has in itself sweetness and cold, but not fire. Thus, and in no other way, is Solution to be understood.

Putrefaction* is the fourth step, under which are comprised Digestion† and Circulation. Now Putrefaction is a very important step which might deservedly stand first, only that would be contrary to the just order and to the mystery which lies concealed here, and is known to very few. For these steps should follow one another in turn, as has been said, like the links in a chain, or the rounds of a ladder. For if one of the links of the chain were taken away, the chain would be broken and the captive would escape. And so, too, if one of the rounds of the ladder should be removed from the middle and put in the highest or the lowest place, the ladder too would be broken, and many would fall headlong from it and endanger their lives. So understand here that these steps follow one another in a just order ; otherwise the whole work of our mystery would be perverted, and all our toil and pains frustrated and rendered void. Putrefaction is of so great efficacy that it blots out the old nature and transmutes everything into another new nature, and bears another new fruit. All living things die in it, all dead things decay, and then all these dead things regain life. Putrefaction takes away the acridity from all corrosive spirits of salt, renders them soft and sweet, transmutes their colours, separates the pure from the impure, and places the pure higher, the impure lower, each by itself.

Distillation is the fifth step to the transmutation of all natural objects. Under it are understood Ascension, Lavation, Imbibition, Cohobation, and Fixation. By Distillation all waters, liquids, and oils are subtilised, the oil is extracted from all fat substances, the water from all liquids, and in all phlegmatic substances the oil and the water are separated.

Moreover, many things in Distillation are fixed by Cohobation, especially if the substances to be fixed contain water within them, as vitriol does. When this is fixed it is called colcotar. Alum, if it is fixed with its own water, is

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* Putrefaction is the handmaid of separation.—*Modus Pharmacandi*, Tract I. Putrefaction is a new qualitative generation.—*De Modo Pharmacandi*, Tract III. The firmament produces colours, corruptions, and digestions of nutriment, of nature, etc. And putrefaction produces a succession of colours rapidly.—*Ibid.* All putrefaction is essentially and excessively cold.—*De Tartaro*, Lib. II., Tract II., c. 7. Putrefaction is the separation of virtue, and at the same time is almost a conservation.—*De Naturalibus Aquis*, Lib. IV., Tract 2.

† Digestion is putrefaction.—*De Pestilitate*, Tract I. By the process of digestion, what is bad and unprofitable in a substance is separated so that the substance remains in its essence, as it was created. In so far as it has become vitiated, digestion causes it to purge itself, so that it labours to return into its essence.—*De Tartaro*, Lib. II., Tract II., c. 2. Between digestion performed in the earth and the digestion which takes place in the body of man, there is this difference, that the earth separates nothing, in the sense that it does not cast out anything excrementitiously ; it digests, putrefies, generates, and augments by the power and ministry of the stars. There is no excremental separation, but there is a separation of seed into salt, sulphur, and mercury. Yet this is not precisely a deprivation of the earth, because the earth contains in itself salt, sulphur, and mercury. The earth, moreover, requires no nutrimental support after the manner of human beings, but the seed is sown in it just as the male seed is sown in the female womb. The earth generates, augments, and multiplies by means of its own indwelling Archeus.—*De Pestilitate*, Tract II.

called Zuccari. This, too, is resolved into a liquid, and if it be putrefied for a month it produces a water as sweet as sugar, which, indeed, is of great power and an excellent arcanum in medicine for extinguishing the microcosmic fire in men of a metallic temperament, as we write more at length in our books on Metallic Diseases.* And just as you have heard of vitriol and alum, so also salt nitre and other watery minerals can be fixed by cohobation.

The process of Cohobation is that a *caput mortuum* is frequently imbibed with its own water, and this is again drawn off by means of Distillation. Moreover, in Distillation many bitter, sharp, and acrid things become very sweet, like honey, sugar, or manna; and, on the other hand, many sweet things, such as honey, sugar, or manna, become sharp, as oil of vitriol or vinegar, or bitter, as gall or gentian, or sharp, as corrosive. Many excrementitious things lose their excessive stench in distillation, since it passes out into the water. Many aromatic things lose their pleasant odour. And just as Sublimation alters things in their quality and nature, so does Distillation.

Coagulation is the sixth step. There is, however, a twofold process of Coagulation, one by cold, another by heat; that is, one of the air, another of the fire. Each of these, again, is twofold, so that there are really four processes of Coagulation, two by cold, and two by fire. The Coagulations by fire are fixed, the others by cold are not fixed. One, indeed, is produced only by common air, or without fire. Another is produced by the upper firmament of winter stars, which coagulate all waters into snows and ice. The Coagulation by fire is produced by the artificial and graduated fire of the alchemist, and is fixed and permanent. For whatever such a fire coagulates, that becomes permanent. Another Coagulation is produced by the Ætnean and mineral fire in mountains, which, indeed, the Archeus of the earth rules and graduates in much the same way as the alchemist; and whatever is coagulated by such a fire is also fixed and constant, though originally its matter was mucilaginous, and it is coagulated by the Archeus of the earth and by the work of Nature into metals, stones, flints, and other bodies. But it should also be known that fire coagulates no water or moisture, but only the liquids and juices of all natural things. For this reason no phlegm can be coagulated, unless it was originally a corporeal matter, whereto, indeed, it can be again restored by the industry of an experienced alchemist. So every mucilaginous matter or spermatic lentor can, by the heat of fire, be coagulated into a body and corporal material, but cannot again be resolved

* Medicines are therefore chosen which are free from coagulation, such as alum, in which humidity and coagulation simultaneously exist. If these two be separated one from another, the quality withdraws into one place, and the element, in like manner, into another. Now, the element of alum is most akin to the element of water. For the element of water also consists in its Hyle, as alum after its excoction, and when it has been separated from its coagulates, it passes into its pure and proper element, despoiled, however, of its medicinal arcana. But alum does not suffer this privation. For water alone prevails against the microcosmic fire. Whence the matter stands thus, that the aquosity must be separated from the alum, and must be rectified therein till it is almost like sugar. The dose is one scruple. If the symptoms of the elementary disease again present themselves, they must be again extinguished as before. There are many such arcana, which I leave to the experience of the school of Vulcan, as it is impossible to enumerate them in this place.—*De Morbis Metallicis*, Lib. II., Tract IV., c. 6.

into water. And as you have heard concerning Coagulation, so know also concerning Solution, namely, that no corporeal matter can be resolved into water unless it originally was water, and such is the case with all mineral substances.*

Tincture is the seventh and last step, which concludes the work of our mystery, with reference to transmutation, makes all imperfect things perfect, transmutes them into their noblest essence and highest state of health, and changes them to another colour. *Tincture, therefore, is the noblest matter with which bodies, metallic and human, are tinged, translated into a better and far more noble essence, and into their supreme health and purity.* For a Tincture colours all things according to its own nature and its own colour. But there are many and various Tinctures, and not only for metallic and human bodies, since everything which penetrates another matter, or tinges it with another colour or essence, so that it is no longer like what it was before, may be called a Tincture. So then there are manifold tinctures, that is to say, of metals, minerals, human bodies, waters, liquids, oils, salts, all fat substances—in a word, of all things which, with or without fire, can be brought or reduced to a state of fluxion. For if the tincture is to tinge, it is necessary that the body or material which is to be tinged should be open, and in a state of flux; for unless this were so, the tincture could not operate. For it would be just as though one were to cast saffron, or some other colour, into coagulated water or ice; it would not tint the ice so quickly with its colour as if one were to put it into other water. And, although it might tinge the ice, it would at the same time reduce it into water. Wherefore, metals also, which we wish to tinge, must be liquefied by fire, and freed from their coagulation. And here it should be known that the more hotly they are liquefied the more rapidly the tincture runs through them, just as fermentation penetrates the whole mass and imparts acidity to it, and the better it is covered up, and the warmer the mass is kept, the more perfectly it ferments, and the better bread it gives: for fermentation is a Tincture of the farinaceous mass and of the bread.†

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* All created things proceed from a coagulate, and afterwards this coagulate must pass into a liquid. From a liquid, then, all procreated things proceed, whether these be liquids or solids possessing a defined shape. Further, the solid can never be so perfectly liquefied as not to strive to return to its solidity. For example: salt, when it is dissolved in water, seeks to revert into its original state. It is the same with all other substances. Moreover, no solid is so completely dissolved but that it will actually return into its original shape, by means of the nature it retains. Understand that any solid proceeds from one of the three principles—sulphur, mercury, and salt—whichsoever it may be. Sulphur is never liquefied so completely as not to leave some solidity adhering to it. This is also the case with salt and mercury. Great attention must he paid to this solidification and dissolution. The one frequently prevails over the other. . . . Understand, therefore, of things in general, that they proceed from three principles; but that from which they proceed is a solid, as, for example, seed, earth, all fruits, and all growing things. Nothing exists which is not a solid. But this is not the solidification of which mention is made here, but is above it and was before it. For fruits were produced from that liquid, and were again solidified. The result is that here a certain kind of generation takes place, and if it be not followed again by a second digestion, as in the digestion which ensued after the first dissolution into fruits, that which finally remains becomes the principle of tartar.—*Aliud Fragmentum de Tartaro.*

† The brutes themselves have an innate knowledge, good and bad. None the less has man, also, his tinctured knowledge, which is bad and good, being tinctured from the stars as regards his earthy nature and condition. In consequence of this nature a most supreme and exhaustive investigation of philosophy is permissible. The right and proper understanding of the animal condition of human nature is contained in an understanding of the tincture of the animal man. Man has two tinctures, one, as regards his inferior being, from the stars, and the other, supernatural, from God.—*De Festilitate*, Tract I.

It is also to be remarked that some dregs are of a more fixed substance than their liquid, of a sharper also and more penetrating nature, as you see in the case of *vinum ardens*, which is made from the dregs of wine, and in the case of *cerevisia ardens*, which is distilled from the dregs of cerevisia; and just as *vinum ardens* burns, and as sulphur is kindled, so, if from the dregs of *acetum* another *acetum* should be distilled, as *vinum ardens* is commonly distilled, there will be produced thence an *acetum* of so fiery and acrid a nature, that it would consume all metals, stones, and other substances, like aquafortis.

Moreover, tincture must be of a fixed nature, fluxible, and incombustible, so that if a little of it be thrown on an ignited plate of metal it will presently float like wax, and that without any smoke, and will penetrate the metal as oil penetrates paper, or water a sponge, and tinge all metals to white and red, that is, in the case of Luna and Sol.* These are now the Tinctures of the metals, which must first of all be turned to alcohol by the step of Calcination. Afterwards, by the second step of Sublimation, their own easy and gentle flux must be produced; lastly, by the step of Putrefaction and Distillation the Tincture is evolved, fixed, incombustible, and of changeless colour.

But the Tinctures of human bodies—whereby those bodies may be tinged into their supreme state of health, and all diseases may be expelled, that their lost powers and colours may be restored, and they themselves invigorated and renewed—are these: Gold, pearls, antimony, sulphur, vitriol, and the like, the preparations whereof we give in many other books, so it does not seem necessary for us to repeat them here.

But concerning Tinctures nothing more need be written, seeing that every extracted colour may be called a Tincture, which, indeed, tinges with a permanent colour things which do not enter the fire, or keep their colours fixed in the fire. All these things are in the hand and power of the dyer or the painter, who prepares them according to his own pleasure.†

It is especially necessary, too, in this book to know the degrees of fire, which can be graduated and intensified in many ways, and each degree has its own peculiar operation, while no one gives the same result as another, as every skilful alchemist finds from his daily experience and the practice of his art. One is the live flaming fire which reverberates and calcines all bodies.

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* I call the tincture of gold the colour of the body itself, which, if separated from the body, so that a white body remains, will be a perfect work. For colour and body are two different things, and for this reason admit of separation, that is to say, the pure (the colour) is separated from the impure (the body). Unless this he done, all the labour will turn out useless. When, accordingly, this separation is accomplished, we must immediately hasten to the clarification of the colour, and to the highest grade of exaltation. But the grade to which the tincture can he exalted is five times double, that is, five times into five times twenty-four, for it cannot become more sublimated.—*Chirurgia Magna*, Part II., Tract III., c. 2.

† Tinctures operate approximately as follows: Just as you see fire completely consume firewood and similar bodies, which, as gold, etc., have no figure of man, so we must believe that tinctures operate. Thus, as antimony purges away all the dross of gold, perfects it, and raises it to the highest grade by cementation, in like manner it becomes manifest that the tinctures themselves have obtained a nature similar to cement, inasmuch as they perform operations completely similar to those of the latter and of fire. The ancient artists marvellously wearied themselves at conjoining tinctures with fire, for they anticipated a medicine in their almost sacred conjunction, but all in vain.—*Ibid.*, c. 8.

Another is the fire of the candle and lamp, which fixes all volatile bodies. Another is the coal fire, which cements, colours, and purges metals from their scoriæ, graduates more highly Sol and Luna, takes the whiteness from Venus, and, in a word, renovates all the metals. Another is the fire of an ignited iron plate, on which the tinctures of metals are probed, which also is useful for other purposes. In another way, scobs (*i.e.*, alkali) of iron produces heat, in another way, sand; in another, ashes; in another, the *balneum maris*, by which many distillations, sublimations, and coagulations are produced. In yet another way operates the *balneum roris*, in which take place many solutions of corporeal things. Otherwise, again, acts the *venter equinus*, in which the principal putrefactions and digestions take place, and in another way operates the invisible fire, by which we understand the rays of the sun, which also is shewn by a mirror, or steel plate, or crystal, and displays its operation and effect, concerning which fire the ancients wrote scarcely anything. By this fire, indeed, the three principles in any corporeal substance can be separated on a table. Of so wonderful a virtue is this fire, that by means of it metals are liquefied, and all fat and fluxible things—all combustible things, indeed—can be reduced to carbon and ashes on a table, and without fire.

Since, then, I have placed before you and disclosed the steps of Alchemical Art, and the degrees of alchemical fire, I will, moreover, point out to you, and describe generically, the various transmutations of natural objects. Before all, one should speak of the metals; secondly, of stones; thirdly, of various objects after their kind. The transmutation of metals, then, is the great secret in Nature, and can only be produced with difficulty, on account of the many hindrances and difficulties. Yet it is not not contrary to Nature or the will of God, as many falsely say. But in order to transmute the five lower and baser metals, Venus, Jupiter, Saturn, Mars, and Mercury, into the two perfect metals, Sol and Luna, you must have the Philosophers' Stone. But since we have already, in the seven steps, sufficiently unveiled and described the secrets of the Tinctures, it is not necessary to labour further about this, but rather rest satisfied with what we have written in other books on the Transmutations of Metals.

But there are further transmutations of imperfect and impure metals, as, for instance, of Mars into Venus. This may be effected in different ways: Firstly, if iron filings are heated in water of vitriol; or, secondly, if iron plates are cemented with calcined vitriol; thirdly, if glowing iron plates are extinguished with oil of vitriol. In these three ways iron is transmuted into the best, natural, and heavy copper, which, indeed, flows very well, and has its own weight as well as any native copper. Iron filing can also be reduced and transmuted as if into lead, so that it becomes entirely soft, like native lead, but it does not flow easily. Therefore proceed thus: Take some iron filing, and the same quantity of the best liquefying powder. Mix them; place them on a tigillum in a blast furnace, make a strong fire, not so much as to melt the iron, but let it stand as if in a cement a whole hour. Afterwards increase the

fire vigorously, so that the iron may glow and melt. Lastly, let the tigillum cool of itself, and you will find a regulus of lead on the tigillum, as soft and ductile as native lead can be.

But in order to transmute Venus into Saturn proceed thus: First of all, sublimate copper, and reduce it by fixed arsenic to a white substance, as white as Luna. Then granulate. Of this, and of good reduced powder, take the same quantity; first cement, and, lastly pour into the regulus, when you will have the true leaden regulus.

On the other hand, it is very easy to turn lead into copper, nor is any great skill required. This is the process: Calcine plates of lead in vitriol, or stratify with the crocus of Venus, cement, and, lastly, liquefy. Then you will see as much native lead as you please transmuted into good, heavy, and ductile copper.

If, now, such copper, or any other copper, be made into plates and stratified with tutia and calamine, cemented, and if, lastly, it be cast, it is changed into a splendid amber or red colour, like gold.

If you wish to change Saturn into Jupiter, take plates of Saturn, and stratify with sal ammoniac, cement, and, lastly, cast, as above. So all its blackness and darkness are taken away from the lead, and it becomes in whiteness like the best English tin.

As you have now heard in brief a summary of some transmutations of metals, so, moreover, know concerning the transmutations of gems, which, indeed, are various and by no means alike. For you see how great a transmutation of gems lies hid in oil of sulphur. Any crystal can be tinged and transmuted in it, and in course of time graduated with distinct colours so as to become like a grained jacinth or ruby.

Understand in like manner concerning the magnet. It can be transmuted into ten times its power and virtue in the following way: Take a magnet, and heat it in the coals to such a degree that it may be at a high temperature, but still not red hot. Extinguish this immediately in the oil of the crocus of Mars, which is made of the best Carinthian steel, so that it may imbibe as much as it can take. Thus you will make a magnet so powerful that with it you can pull out the nails from a wall, and do other wonderful things which a common magnet could never accomplish.

Moreover, in the transmutations of gems, it must be known that the world is situated in the two grades of tincture and coagulation. For as the white of an egg can be tinged with saffron, and afterwards coagulated into a beautiful yellow amber, with the dye of a pine into black amber, with verdigris into green amber, like the cyanean or Turkish stone, with green juice into the likeness of an emerald, with lazuleum into a cerulean amber like sapphire, with Brazilian wood into a red amber like the grained jacinth or ruby, with a purple colour like amethyst, or with ceruse made to resemble alabaster—so all other liquids, and especially metals and minerals, can be tinged with fixed colours, afterwards coagulated, and transmuted into gems.

Similarly pearls, too, can be made entirely like true ones in appearance so that by means of their brightness and beauty they can scarcely be distinguished from genuine ones. Proceed thus: Purify as much as possible the white of eggs with a sponge. Into this put and mix some fair white talc, or pearl shell, or Mercury coagulated with Jupiter and reduced to alcohol. At the same time pound it in marble very fine, so that it becomes a thick amalgam, which must be dried in the sun or behind a warm furnace until it becomes like cheese or hepar. Lastly, from this mass make as many pearls as you wish, and fix them on hog bristles. Having thus bored them, dry them as you did the amber, and you have prepared them. If they do not shine sufficiently anoint them externally with the white of an egg, and again dry them. Thus they will become most beautiful pearls, like true ones in form though not in virtue.

Almost in the same way corals are made by those who wish to deceive people as with the pearls just spoken of. Proceed thus: Pound cinnabar with white of eggs in a marble mortar for an hour. Afterwards dry it like potter's earth. Then form from thence pilules or small branches, as you will; lastly, dry them thoroughly, and anoint them externally, as you did the pearls, with white of egg. Dry them again, and thus they will become like native coral in appearance, but not in virtue.

It should also be known that the white of eggs by itself can be coagulated into a very fine varnish, into which coagulation Luna or Sol may be put.

There are many other and various transmutations, whereof I will tell you briefly, and by the way, those which I know and have experimented on. First, learn that any wood, if at a particular time it be put in the water of the salt of a gem, is converted into stone in a manner calculated to cause wonder. So, too, stones are transmuted into coals by Ætnean fire, and these are called stone coal.

In the same way glue is made from hides, paper from linen rag, and silk is produced out of linen with a very sharp lixivium made from lime and the ashes of woad. If the downy parts are taken from feathers and dressed with this lixivium, they can be spun and woven like cotton. Any oil or spermatic mucilage can be coagulated into varnish; any liquid into gum. All these are transmutations of natural objects: whereof we have now said enough, and therefore write our finis.

CONCERNING THE NATURE OF THINGS.

BOOK THE EIGHTH.

Concerning the Separations of Natural Things.

IN the creation of the world, the first separation began with the four elements, when the first matter of the world was one chaos. From that chaos God built the Greater World, separated into four distinct elements, Fire, Air, Water, Earth. Fire was the warm part, Air only the cold, Water the moist, and, lastly, Earth was but the dry part of the Greater World.

Now, that you may learn our method in this Eighth Book as briefly as possible, you must know that we do not propose to treat herein concerning the Separation of the Elements in all natural things, since we have fully and perfectly taught concerning these arcana in our Archidoxa on the Separations of the Elements. But here we touch only on the separation of natural things,* where some one thing is singly, and by itself, materially and substantially separated and segregated, when two, three, four, or more have been mingled in one body, and yet only a single matter is touched and seen. And here it frequently happens that corporeal matter of this kind can be known by nobody, nor be designated by an express name, until the process of separation is instituted. Then sometimes from a single matter two, three, four, five, or more, proceed, as by daily experience in Alchemy is made evident. By way of example for you, there is electrum, which by itself is not a metal, but still conceals all the metals in one metal and body. If this, by alchemical art, be anatomised and separated, all the seven metals, and these pure and unmixed, proceed from it, namely, gold, silver, copper, tin, lead, iron, quicksilver, etc.

But in order to understand what separation is, you should know that it is nothing else but the segregation of one thing from another, whether two, three, four, or more have been mixed: I mean the segregation of three principles, as mercury, sulphur, salt, and the extraction of the pure from the impure, or of the pure and noble spirit and quintessence from the dense and

* Separation is grounded in heat, as in a faculty of digestion, whence, sometimes in one way, and sometimes in another, the ultimate matter is formed.—*Modus Pharmacandi*, Tract III. The office of the Archeus is the sequestration of the pure from the impure.—*De Morbis Tartareis*, c. 5. For unless there be separation in the greater world, there can be no metal, and unless there be separation in the smaller world, that is, in the microcosmos, which is man, there can be neither health nor disease, but an equable and perpetual disposition of all things.—*Chirurgia Magna*, Part III., Lib. 2.

elemental body ; and the preparation of two, three, four, or more from one : or the dissolution and liberation of things linked and bound together, which are by nature adverse, and perpetually act contrariwise one to the other, and go on doing so until they mutually destroy each other.

There are many and various modes of separation, all of which are not known to us ; but those among the soluble natural elements which have been investigated by us shall here be set down and described according to their species.

The first Separation of which we speak should begin from man, since he is the Microcosm, the lesser world, and for his sake the Macrocosm, the greater world, was founded, that he might be its Separator. But the separation of the Microcosm begins from death.* For in death the two bodies of man separate from each other, that is to say, the Celestial and the Terrestial, the Sacramental and the Elemental. One of these soars on high, like an eagle ; the other sinks down to the earth, like lead.†

The elemental body decays and is consumed. It becomes a putrid corpse, which, being buried in the earth, never again comes forth or appears. But the Sacramental body, that is, the sidereal and celestial body, does not decay, is not buried, occupies no place. This body appears to men, and is seen even after death. Hence we have spectres, visions, and supernatural apparitions. From these the Cabalistic Art was elaborated by the ancient Magi, which is treated of more at length in the books on the Cabala.‡

After this separation has been made, then, by the death of the man, the three substances separate one from the other, that is to say, the body, the soul, and the spirit, each wending its way to its own place, as to the ark from

* There are two kinds of death – one from the Yliadus, and one from the Ens. With that which comes from the Yliadus medicine may attempt to do battle ; with that which comes from the Ens it is useless to attempt to cope. – *De Tartaro*, comment. in Lib. II.

† It has, therefore, seemed good to me that man should first of all be described according to his nature and condition, so that it may become more clearly intelligible what is to be sought in the mortal body, that is to say, mere mortality, and what also is to be sought in the sidereal body, forsooth mere mortality. Afterwards we must become acquainted with the soul, which is by no means mortal, but is the eternal man. You must further know that the soul is flesh and blood, and that it consists of flesh and blood, but that there is a twofold flesh, namely, mortal and eternal. The mortal takes its essence from mortal flesh ; the eternal is perfect flesh and blood unto life eternal. Therefore if man considers within himself who and what he is, and what will be his future condition, he will thence readily understand that in this body, incarnate from the Holy Spirit, he shall see God, his Redeemer, and that whatsoever God our Redeemer operates in us, He does through the man of new generation, because that is not of a mortal but an eternal body. Only this body is secure from the devil. The second is from Adam, and is like a seed in water. The other body is suitable for the performance of works Divine, for a mortal body can accomplish nothing of those things which are celestial. It cares only for things earthly and things of the firmament, and it produces men skilled only in natural light. Hence God ordains man to gain a wider experience from that which is naturally formed, to pass from one to the other, and to emulate Nature. For in a new body and a celestial philosophy is life eternal. Death is inherent in natural strength, but life, on the contrary, consists in eternal strength. The instruction of Nature is from the earth, and she knows not God, except that she admires the Creator in man. Nor yet does man recognise God according to Nature or in Nature. But he who is born from on high is acquainted with supernal things. The first of these is Christ. All who are reborn in flesh and blood, conceived and incarnate from the Holy Ghost, do follow Him, and these same have the knowledge of things above. For they are from Him who cometh from on high. Hence there are two instructions, one of the earth earthy, the other from on high, which He imparts who also is from on high, from whom we derive, whose flesh and blood we are, etc. – *Philosophia Sagax*, Lib. II., c. 2.

‡ The sole work on the cabala which has been preserved in the name of Paracelsus, is a short treatise, which forms a detached portion of the book entitled *De Pestilitate*. It is not cabalistical in the sense which properly attaches to that term, nor does it exhibit any special acquaintance with that section of Jewish traditional literature to which it is referred in name. In its general outline it seems to be fairly in harmony with the great body of cabalistical cosmogony,

which it first of all came forth: the body to the earth, as the first matter of the elements; the soul to the first matter of the sacraments; and, lastly, the spirit to the first matter of the aërial chaos.

What has now been said concerning the separation of the Microcosm should also be understood of the greater world, which the mighty ocean has separated into three parts, so that the universal world is thus divided into three portions, Europe, Asia, and Africa. This separation is a sort of prefiguration of the three principles, because they, too, can be separated from every terrestrial and elemental thing. These principles are Mercury, Sulphur, and Salt. Of these three the world is built up and composed.

From this should be known the separation of the metals from their mountains, that is to say, the separation of metals and minerals. By the separation which is instituted in these, many come forth from one matter. You see that from minerals come forth metal, scoriæ, glass, sand, pyrites, marchasite, granite, cobalt, talc, cachimia, zinctum, bismuth, antimony, litharge, sulphur, vitriol, verdigris, chrysocolla, cœruleum or lazulum, auripigment, arsenic, realgar, cinnabar, fireclay, spathus, gyphus, tripolis, red earth, and other like things; and then of each one of these the water, the oils, the resins, the calx or ash, the Mercury, Sulphur, Salt, etc.

Vegetables in their separation give waters, oils, juices, resins, gums, electuaries, powders, ashes, Mercury, Sulphur, Salt, etc.

Animals in their separation give water, blood, flesh, fat, bones, skin, body, hair, Mercury, Sulphur, Salt, etc.

Whoever, therefore, boasts to be a separator of such natural things, needs long experience, and perfect knowledge of all natural objects. Besides this, he must be a skilled and practised alchemist, to know what is or is not

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and it is briefly as follows. Earth, water, air, and fire have their origin from three things, which, however, are not to be regarded as of prior creation, for they are and have been fire, air, water, earth. The three have all proceeded from one mother. This mother was water. When the whole world was formed the Spirit of God was borne over the waters, for by the word *Fiat* water was first created, and thence all other creatures, animate and inanimate. These three are called, truly, sulphur, mercury, salt. These, therefore, are the true principle, these the true matter, out of which all animals and man himself are formed. Thus for perfect generation in all things there are three things required—spring, summer, and autumn. This is especially the case in man himself. Now, sulphur, mercury, and salt recognize two rulers. Salt has the Moon, and is thereby governed. It is also a subject of water, in which it is dissolved and liquefied. It is of autumn and winter. But the Sun is king and lord of sulphur, which is fervid, igneous, and dissolved in fire. Now, the Sun is the ruler of spring and autumn. But all things are nothing else save sulphur, mercury, and salt, which, further, are the most certain mark of every true physician. Salt is the body of autumn and winter, and sulphur of spring and summer. Salt gives form and colour to all creatures; sulphur gives body, increase, and digestion. These two are father and mother, from which mediating stars all creatures are produced. But mercury needs daily nourishment, and also continual augmentation from sulphur and salt. Know also that God has put much sulphur and salt into earth and water, and every creature, animate and inanimate, in water and earth, have their proper sulphur and salt, whence they receive nourishment and savour. Salt gives savour and form, sulphur odour and the power of putrefaction. The Sun and Moon assiduously labour to generate these three things copiously, and also to mature the same. The Sun and Moon are the parents of all creatures, while sulphur and salt are the seed. The seed is brought by the parents, and the fœtus, which is mercury, is born. The manner of the nativity of everything has its analogies in the great world. When the death of winter has passed, all things that are capable of receiving life are set in motion by the amenity of May, and all creatures are transported with singular delight, even as a pregnant woman who desires to bring forth. Now, every individual being has assigned to it its own May for its conception and birth, its respective autumn, and its peculiar harvest. So are there various springs, summers, and autumns, according to the infinite varieties of creatures. The doctrine of the three prime principles recurs continually in the writings of Paracelsus, and is elsewhere treated at considerable length in the text of this translation. At the same time, the obscurity which involves the subject seems to warrant the citation of passages such as the above, not exactly to cast light upon the question, but to exhibit the primeval mystery of Paracelsican philosophy with all its available variations.

combustible, what is fixed and what volatile, what does or does not pass into flux, and what thing is heavier than another. He must also have investigated in every object its natural colour, odour, acidity, austerity, acridity, bitterness, sweetness, its grade, complexion, and quality.

Moreover, it is necessary to know the grades of separation, that they consist of distillation, resolution, putrefaction, extraction, calcination, reverberation, sublimation, reduction, coagulation, pulverisation, lavation. By distillation, water and oil are separated from all corporeal substances. By resolution, metals are separated from minerals, and one metal from another, salt and fatness from others, and the light is separated from the heavier. By putrefaction, the fat is separated from the lean, the pure from the impure, the decayed from the undecayed. By extraction, the pure is separated from the impure, the spirit and the quintessence from their body, and the pearl from its dense body. By calcination are separated watery moisture, fatness, natural colour, odour, and whatever is otherwise combustible. By reverberation are separated colour, odour, inflammability, all moisture and wateriness, fat, whatever, in a word, there is in the substance which is fluxible or inconstant, and so on. By sublimation are separated from each other the fixed and the volatile, the spiritual and the corporeal, the pure from the impure, the Sulphur from the Salt, the Mercury from the Salt; and the rest. By reduction, the fluxible is separated from the solid, the metal from its mineral ore, one metal from another, metal from ash, the fat from that which is not fat. By coagulation is separated moisture from mere humidity, water from earth. By pulverisation are separated one from the other dust and sand, ashes and lime, the mineral from the animal and vegetable substance. All powders which are of unequal weight are separated by the process of jaculation, just as the chaff from the corn. By washing or ablution, ashes and sand are separated, the mineral from its metal, the heavy from the lighter substance, the vegetable and animal portion from the mineral, Sulphur from Mercury and Salt, Salt from Mercury.

But now, discarding mere theory, let us approach the practical work of separation, and come down to special details. It must be remarked that the separation of metals is rightly the first of all. For this reason, therefore, we will treat of that first.

Concerning the Separation of Metals from their Minerals.

The separation of metals from their mineral ores can be effected in many ways, for instance, by ebullition or excoction, or by liquefaction with certain liquefying powders, as salt of alkali, litharge, *sal fluxum*, *fel vitri*, ash, sal gemmæ, saltpetre, etc. Put them into a vessel or dish, and let them liquefy in a furnace. Then the metal as a regulus will subside to the bottom of the vessel, but the matter of the mineral will float on the surface and will become ash. You must then work this metallic regulus in a furnace by means of a reverberatory, until all the pure metal is liberated without any dirt or ash. In

this way, the metal is thoroughly digested and (so to say) refined or purged from all its dirt and scoria. Mineral ores of this kind will sometimes contain more than one metal, as is very often the case: for example, copper and silver, copper and gold, lead and silver, tin and silver, etc., may be found in one mineral ore; and the sign of this circumstance will be apparent if the metallic regulus, after being dealt with in the reverberatory, be resolved in a small vat after the proper fashion and mode. All the imperfect metals in it are separated, such as copper, iron, tin, lead, and so they pass away in smoke together with the lead (of which there should be added twice as much as of the regulus), and then only fine silver and gold remain in the vat. A similar result is attained, too, if the metallic rex is liquefied and poured upon the lumps. By that method of fusion the intermixed metals are separated. That which is best and weightiest always sinks to the bottom, while the lighter mounts above.

Two or three metals in admixture can also be separated in acrid and strong water, and one can be extracted from the other, and extended and resolved. But if both metals are resolved together, one of them in that resolution, as sand or calx, can be diverberated and depressed with salt according to the usual method, and so separated.

Besides this, metals can also be separated by fluxion according to the following process. Reduce the metals to a state of flux. When this has been done, throw in for every pound of the metal one ounce of the most perfectly sublimated and refined sulphur. It will there be burnt, and in the course of that operation it will attract to itself, on the surface, one metal, the lightest, whilst it will leave the heavier at the bottom. Let them stand in this way until cool. So in the one regulus two metals will be found, not, as before, mixed together, but opposed to each other, and separated by the sulphur as if by a wall, even as oil cuts off two bodies of water, so that that they cannot join and be commingled. In the same way sulphur acts with these metals. Sulphur, therefore, is an arcanum, worthy of the highest esteem.

Volatile and fugitive metals, such as gold and silver, if they are to be separated from their minerals, since they can neither be treated in the fire nor with strong waters, should be amalgamated, separated, and extracted by means of *Mercurius vivus*. Afterwards the *Mercurius vivus* must be abstracted and separated from the calx of the gold or silver by the grade of distillation.

In this way, other metals, too, as gold, silver, copper, iron, tin, lead, and substances prepared from these, as red electrum, white magnesia, aurichalcum, lead ashes, laton, casting brass, part with part, etc., and whatever transmuted metals of this kind there are, must be abstracted and separated from their extraneous substances by means of *Mercurius vivus*. For this is the nature and quality of *Mercurius vivus*, that it is amalgamated with metals and wholly united with them, but more quickly or more slowly with one than with another, according as the metal is more or less akin to its nature.

In this scale the principal is fine gold, then fine silver, the third lead, the

fourth tin, the fifth copper, and the last iron. So among transmuted metals the first is part with part, then lead ashes, next laton, afterwards casting brass, then red metal, and lastly white. Mercury, for its part, does not take more than one metal with which it is amalgamated. Afterwards, that amalgam must always be vigorously pressed out by means of goat's skin or a cotton rag, of which a strip is to be inserted, by which means nothing but *Mercurius vivus* alone will pass over. The metal which was attracted will remain on the skin or the rag like lime, and you can afterwards reduce it to a metallic body, by liquefying it with salt of alkali, or some other substance. By this device *Mercurius vivus* is separated from all the metals more quickly and conveniently than by the method of distillation. By this process with *Mercurius vivus,* in the hands of a skilled and active alchemist, all metals can be extracted and separated one from another in turn, after their calcination and pulverisation. In the same manner, with very small outlay of labour, tin, too, and lead can be separated from copper, or from copper vessels, from iron and steel covered with tin, and this without any fire or water, solely by the amalgam of *Mercurius vivus,* as we have said. Again, gold and silver leaf, as also every metal after being ground or pounded, and written with pen or pencil on cloth, parchment, paper, leather, wood, stone, or other material, can be resolved with *Mercurius vivus,* but so that afterwards the *Mercurius vivus* can again be separated and segregated from these metals.

The separation of metals in aqua fortis, aqua regis, and similar strong corrosives, is effected in the following manner: Let the metal which is mixed and joined to another be taken and reduced into very thin plates, or most minute portions. Let it be put into a separating vessel, and a sufficient quantity of common aquafortis be poured upon it. Let these stand, and both be macerated until all the metal is resolved into a transparent water. If it be silver, and contains gold in it, all the silver will be resolved into water, while the gold will be calcined and sink down to the bottom in the form of black sand. By this method the two metals, gold and silver, will be separated. But if you wish to separate the silver alone without distillation, and to drive that to the bottom like black sand, and to bring it back to calcination from its state of resolution, then put into that resolution a small copper plate, and thereupon the silver will sink in the water, and occupy the bottom of the glass vessel like snow, while it will begin gradually to consume the copper plate.

The separation of silver and copper by means of common aquafortis is accomplished in the following way: Reduce the copper which contains silver, or the silver which contains copper within itself, into very thin plates, or into grains; put it into a glass vessel, and add as much common aquafortis as necessary. In this way the silver will be calcined, and will go to the bottom in the form of white lime, while the copper will be resolved and converted into transparent water. If this water, together with the resolved copper, be abstracted through a glass funnel from the silver calx into a separate glass vessel, then the resolved copper can be reverberated with common rain or

river water, or with hot salt water, so that it will occupy the bottom of the glass vessel like sand.

The separation of hidden gold from any metal is effected by the degree of extraction through aqua regis; for this water does not approach for the purpose of resolving any metal but fine gold alone.

This same aqua regis also separates fine gold from gilded clenodia. If it be smeared over these, it wipes away and sunders the gold.

Moreover, also, two metals mixed together can be separated one from the other with a cement by the degree of reverberation, especially if they are not in a similar degree of fixation, as iron and copper. A metal which has very little fixation, such as tin and lead, is altogether consumed in the cement by the degree of reverberation. The more fixed any metal is the less is it affected or consumed by the cement.

It should be known, too, that fine gold is the most fixed and perfect of all metals, and can be consumed by no cement. Next to this is fine silver. But if gold and silver be mixed together in one body, which is generally called "part with part," or if silver contains gold, or gold silver, in itself—if these mixtures, I say, be cemented and reverberated together, then the gold always remains entire and inviolate, while the silver is consumed by the cement, and is extracted from the fine gold; and so is copper from silver or iron, or tin from copper and iron, or lead from tin; and so on in order with the others.

Concerning the Separation of Minerals.

So far we have explained the separation of metals from their earth and matter, and of one metal from another; and have shewn how it was to be done, using the greatest brevity consistent with accuracy, and following the alchemical art and practical experience. Now, next in order, it will be necessary also that we treat of those things out of which metals grow and are generated, such as are the three principles, Mercury, Sulphur, and Salt, and other minerals, among which is found the first essence of metals, that is, the spirit of metals, as is evident in marchasites, granites, cachimiæ, red talc, lazurium, and the like. In these the first essence of gold is found by the degree of sublimation. So, too, in white marcasite, white talc, auripigment, arsenic, litharge, etc., the first essence of silver is found. In cobalt, zinctum, etc., the first essence of iron. In zinctum, vitriol, atramentum, verdigris, etc., the first essence of copper. In zinctum, bismuth, etc., the first essence of tin. In antimony, minium, etc., the first essence of lead. In cinnabar is found the first essence of silver.

Concerning this first essence, it should be known that it is a fugitive spirit, still existing in a volatile state, as a child lies hidden in the womb of its mother. It is sometimes assimilated to a liquid, sometimes to alcohol. Whoever, therefore, is anxious to have the prime essence of any body, and to separate it, needs great experience and knowledge of the Spagyric Art.

If he has not diligently laboured in alchemy it will avail him nothing, and his labour will be in vain. How the first essence is to be separated from all mineral bodies has been sufficiently explained in the books of the Archidoxis, and need not be repeated here. But as to the separation of minerals, it should be remarked that many things of this kind are separated by means of sublimation, as the fixed from the non-fixed, spiritual and volatile bodies from the fixed, and so throughout all the divisions, as is detailed in the case of metals. With all minerals the process is one and the same, through all the degrees, as the Spagyric Art teaches.

Concerning the Separation of Vegetables.

The separation of those things which grow out of the earth and are combustible, such as fruits, herbs, flowers, leaves, grasses, roots, woods, etc., is also arranged in many ways. By distillation is separated from them first the phlegma, afterwards the Mercury, after this the oil, fourthly their sulphur, lastly their salt. When all these separations are made according to Spagyric Art, remarkable and excellent medicaments are the result, both for internal and external use.

But when laziness has grown to such an extent among physicians, and all work and every pursuit are turned only to insolence, I do not wonder, indeed, that preparations of this kind are everywhere neglected, and that coals stand at so low a price. If smiths could do without coals for forging and fashioning metals as easily as these physicians do without them in preparing their medicines, there is no doubt that all the coal merchants would have been before now reduced to extreme beggary. In the meantime, I extol and adorn, with the eulogium rightly due to them, the Spagyric physicians. These do not give themselves up to ease and idleness, strutting about with a haughty gait, dressed in silk, with rings ostentatiously displayed on their fingers, or silvered poignards fixed on their loins, and sleek gloves on their hands. But they devote themselves diligently to their labours, sweating whole nights and days over fiery furnaces. These do not kill the time with empty talk, but find their delight in their laboratory. They are clad in leathern garments, and wear a girdle to wipe their hands upon. They put their fingers among the coals, the lute, and the dung, not into gold rings. Like blacksmiths and coal merchants, they are sooty and dirty, and do not look proudly with sleek countenance. In presence of the sick they do not chatter and vaunt their own medicines. They perceive that the work should glorify the workman, not the workman the work, and that fine words go a very little way towards curing sick folks. Passing by all these vanities, therefore, they rejoice to be occupied at the fire and to learn the steps of alchemical knowledge. Of this class are: Distillation, Resolution, Putrefaction, Extraction, Calcination, Reverberation, Sublimation, Fixation, Separation, Reduction, Coagulation, Tincture, and the like.

But how all these separations are made according to Spagyric and

Alchemical Art by the help of distinct degrees has before been said generally, and to repeat the same thing here anew is vain. To go on to specialities and briefly explain the practical method, let it be known that all cannot be separated by one and the same process; that is to say, the water, spirit, liquid, oil, etc., from herbs, flowers, seeds, leaves, roots, trees, fruits, woods, according to the grade of distillation.

Herbs require one process, flowers another, seeds another, leaves another, roots another, trees, stalks, and stems another, fruits another, woods another, etc. And in this grade of distillation the four degrees of fire have to be considered. The first degree of fire is the *Balneum Mariæ*. This is the distillation made in water. The second degree of fire is distillation made in ashes. The third is in sand, the fourth in free fire, as also distillation is generally made by aqua fortis and other violent waters. Herbs, flowers, seeds, and the like, require the first degree of fire. Leaves, fruits, etc., need the second. Roots, branches, and trunks of trees, etc., require the third. Timber and the like require the fourth. Each of these substances must be minutely cut up or pounded before being brought into the still. So much has been said as to the distillation of waters and vegetable substances. As regards the separation and distillation of oils the same process must be followed as we have spoken of in the separation of waters, except that, for the most part, they have to be distilled by descent. They cannot, like waters, ascend in the still; therefore, in this case the process has to be changed. Liquids, however, are not separated like waters and oils, by distillation, but are squeezed out from their corporeal substances under a press. And here it should be known that some oils, in like manner, just as liquids, are squeezed out from their corporeal substances and separated by means of the press for this reason, that they can bear scarcely any combustion or heat of the fire, but acquire therefrom an unpleasant odour. Of this kind are the oils of almonds, nuts, hard eggs, and the like. This also is to be noted, that all oils, if they are prepared or coagulated according to Spagyric and Alchemical Art, pour forth varnish, electuary, gum, or a kind of resin, which might also be called a sulphur; and if the species left in the still were calcined and reduced to ashes, alkali could be extracted and separated from them with simple warm water alone. The ash which is left is called dead earth, nor can anything more be produced or separated from it.

Concerning the Separation of Animals.

It is necessary to preface the separation or anatomy of animals by shewing how the blood, flesh, bones, skin, intestines, etc., stand each by itself, and then how each is separated by Spagyric Art. In this part the separations are principally four. The first draws forth from the blood a watery and phlegmatic moisture. For when the blood has been separated in this manner, according to the process handed down in the book on Conservations,* an

* That is, the *Preservations of Natural Things.—De Natura Rerum*, Book III.

excellent Mumia* comes forth, and a specific so potent that any fresh wound can be healed and consolidated in twenty-four hours by a single ligature.

The second separation is that of fat from flesh. This fatness being separated from human flesh, a most excellent balsam is produced, allaying the pains of gout, of contraction, and others of a like nature, if the members affected be anointed with it while warm. It is also useful for convulsed tendons of the hands or feet, if they are daily anointed with it. It further cures the itch, and all kinds of leprosy. This, therefore, is the chief surgical specific, and of the very first efficacy in all accidents and wounds.

The third separation is that of the watery and phlegmatic moisture with fatness extracted from the bones. For if these two are separated from human bones by Spagyric Art, and according to the degree of distillation, and if, moreover, by the method of calcination they are reduced or burnt to a white ash, and if, lastly, these three be again united in the proper way, so that they are like to butyrus, there will be formed a wonderful arcanum and specific, with which you will be able, without pain, to entirely cure any fracture of the bones after binding them up only thrice, provided only that you treat the fracture by setting it according to the rules of surgical science, and then put on the specific in the form of a plaster. The same also thoroughly cures wounds of the skull, or any contusion of the bones, in the shortest possible time.

The fourth and last separation is that of resins and gums from the skin, intestines, and tendons. For the resin is extracted and separated from these by the degree of extraction according to Spagyric Art, and when coagulated in the rays of the sun it comes out as a clear and transparent paste. When this paste has been prepared, extracted, and separated from the human body according to the prescribed method, a most excellent styptic arcanum and specific issues forth, with which a wound or ulcer can be quickly healed and the lips brought together, just as two sheets of paper are stuck together with paste, if only you apply to the wound two or three drops of that resolved substance. This arcanum, too, is of singular efficacy for burns, and falling off or roughness of the nails, if it be spread over them with a feather. In this way the bare flesh will be covered over with a cuticle.

Many other separations also of one thing or another might be recounted here ; but since we have made mention of them in other places, it would be in vain idly to repeat them now.

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* Mumia is that which cures all wounds, that is, sweet mercury. For mercury is extracted both in a sweet and bitter form. The former is adapted to wounds and the latter to ulcers. Mumia is the liquor diffused through the whole body, the limbs, etc., with the strength that is required. It is divided as follows : in flesh, according to the nature of the flesh ; in bone, according to the nature of the bone ; in the arteries and ligaments, according to their nature ; and so also in the marrow, the veins, and the skin. Hence it follows that the mumia of the flesh cures wounds of the flesh, the mumia of the ligaments cures wounds of the ligaments, etc. Thus the body which has sustained an injury carries its own cure with it ; the mumia of the aged, however, is deficient in virtue and strength. The corruption of the mumia, which is often occasioned by the mistakes of ignorant physicians, impedes the cure of wounds. . . . The nobler the animal organism is, by so much is the mumia of the organism enhanced in power and efficacy. The medicaments which benefit wounds perform this operation by attracting the mumia to the place where its office is required.—*Chirurgia Minor*, Lib. I., c. 1.

Here it is only necessary to write down that which we have not mentioned elsewhere.

But at last, at the end of all earthly things, will be brought about the final separation, in the third generation, on that great day whereon the Son of God shall come in His majesty and glory, and before Him shall be borne, not swords, chains, diadems, sceptres, and treasures, or other royal jewels, with which princes, kings, and Cæsars bear themselves pompously, but His Cross, and crown of thorns, and nails piercing His hands and feet, and the spear with which His side was wounded, and the reed and sponge on which they stretched out that which they gave Him to drink, and the rods with which He was scourged and beaten. No crowd of horsemen with far sounding drums shall accompany Him ; but the four trumpets shall be blown by the angels towards the four parts of the earth, and at their tremendous sound all who are among the living shall be slain, and these together with the buried dead shall immediately rise again.

For a voice shall be heard, "Rise, ye dead, and come to judgment!" Hereupon the Twelve Apostles shall sit down on thrones prepared from the clouds, and shall judge the twelve families of Israel. In that place the Holy Angels shall separate the bad from the good, the cursed from the blessed, the goats from the sheep. Then the cursed shall be thrown down like stones and like lead ; but the blessed shall fly like eagles. Then from the tribunal of God shall issue forth a voice to those standing on the left hand, "Go away, ye cursed, into everlasting fire, prepared from eternity for Satan and the devils. For I was hungry and you did not feed Me ; I was thirsty and you gave Me no drink ; I was sick, and a prisoner, and naked, but you did not visit Me, did not set Me free, did not clothe Me. In a word, you were not touched with pity for Me. Therefore, here you shall meet with no pity!" Contrariwise to those standing on the right side it shall say thus : "Come, ye blessed and elect, into the Kingdom of My Father, which has from the beginning been prepared for you and for all the angels. For I was hungry and you gave Me food ; I was thirsty and you gave me to drink ; I was a stranger and you received Me ; I was naked and you clothed Me ; I was sick and you visited Me ; I was in prison and you came to Me. So will I receive you also into My Father's house, in which are the many mansions of the saints. You pitied Me ; and so I will pity you!"

When all these things are finished and done, all the elementary subjects shall return to the first matter of the elements, and shall be turned about for eternity, yet never consumed. On the contrary, all sacramental creatures shall return to the primal matter of the sacraments, that is, they shall be glorified, and in eternal joy they shall worship God their Creator, from universe to universe, from eternity to eternity. Amen.

CONCERNING THE NATURE OF THINGS.

BOOK THE NINTH.*

Concerning the Signature of Natural Things.

IN this book, our first business, as being about to philosophise, is with the signature of things, as, for instance, to set forth how they are signed, what signator exists, and how many signs are reckoned. Be it known, first of all, then, that signs are threefold. The first things signed man signs; the second Archeus signs; the third the Stars of the Supernaturals. In this way, then, only three signators exist, Man, Archeus, and the Stars. Moreover, it should be remarked that the signs signed by man carry with them perfect knowledge and judgment of occult things, as well as acquaintance with their powers and hidden faculties.

The signs of the stars give prophecies and presages. They point out the force of supernatural things, and put forth true judgments and disclosures in geomancy, chiromancy, hydromancy, pyromancy, necromancy, astronomy, the Berillistic art,† and other astral sciences.

Now, in order that we may explain all the signs as correctly and as briefly as possible, it is above all else necessary that we put forward those whereof man is the signator. When these are understood you will more rightly attain to the others, whether natural or supernatural. For instance, it is known that

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* Note with reference to the books *De Natura Rerum*. In most editions, seven books only are included under this heading, but the Geneva folio, from which the translation has been made, gives nine as above. In the other cases the treatises on *Separations* and *Signatures* are regarded as independent works. There can be no doubt that the classification adopted by the Geneva folio is correct, for in method and design these treatises are integrally connected with the rest of the *Nature of Things*.

† Among the branches of astronomy there is one which is called Nigromancy. It has gained this name because it is exercised by night rather than by day. This science is everywhere and by all rejected and cursed as diabolical, yet only by those who are ignorant of it. For this science is a natural one, born of the stars. But above all notice the property of beryls. In these are beheld the past, present, and future. Let no one be surprised at this, because the constellation impresses the image and similitude of its influence upon the crystal in the likeness of that concerning which inquiry is made. This must take place by a compulsion of the constellation, as is recorded in magic. As the splendour of the sun flows in upon the crystal, so the constellation pours it from above upon the object. Moreover, all things which exist in Nature are known to the constellations, and when the stars are subject to man, he can bring them to such obedience that they favour his will. It is universally boasted concerning faith that it can accomplish many things. This is, indeed, not far from the truth, for Christ Himself bears witness to it. And since faith is an operative principle it is evidently nothing else but a virtue and an efficacy. For virtue works in a word, and words make the dead alive. In a similiar fashion, what else is there in the stars than that by faith in Nature they are conquered? And as by the word of faith the mountain is cast into the sea, know that it is owing to natural faith that by a word the stars are brought down, so that they may perform their operation according to our imagination, for he is wise who rules the stars—he is wise, I say, who can bring their virtues under his rule, for in this manner are constituted visions in glasses, mirrors, waters, and the rest, according to the quality of the power, and of the union made in conception.—*Explicatio Totius Astronomiæ.*

Jews wear a yellow sign on their cloak or on their coat. What is this but a sign by which anybody who meets him may understand that he is a Jew? So, too, the lictor is known by his parti-coloured tunic or armlet. So, too, every magistracy decks its ministers with its own proper colours and adornments.

The mechanic marks his work with its peculiar sign, so that everyone may understand who has produced it. For what purpose does the courier carry the insignia of his master or his city on his garment, except that it may be clear he is a messenger, that he serves one or another, that he comes from one place or another, and so thus procures for himself a safe passage?

So, too, the soldier carries a sign or symbol, black, white, green, blue, or red, that he may be distinguished from the enemy. Hence it is known that one is on the side of Cæsar, or of the kings; that one is an Italian, another a Gaul, etc. These are signs which relate to rank and office; and many more of them might be enumerated. But, nevertheless, since we have proposed to ourselves to describe other signs of natural and supernatural things, we will not overload our book with those signs that are foreign to our purpose.

It is necessary more clearly to explain those signs which man affixes, and which lead to a knowledge, not only of rank, office, or name, but also of discrimination, intelligence, age, dignity, degree, Next in order, with regard to money, it should be remembered that every coin carries its proof and sign by which it may be known how much that coin is worth, to what power it belongs, where it circulates and is passed. Here comes in the German proverb: "Nowhere is money more acceptable than where it is struck."

The same is to be understood of the customary signs which are affixed by jurors and those appointed for the purpose, after due inspection has been previously made. An instance of this is found in the cloths marked with distinguishing signs by which it may be known that on examination they have been found good and genuine. Why is a seal appended to letters except that there may be a certain force which none will dare to violate? The seal is the confirmation of the letter which gives it authority among men and in trials. A receipt without a seal is dead, useless, empty.

In the same manner, by a few letters, names, or words, many things are designated, just as books which, though lettered outside with only one word, in that way signify their contents.

Such, too, is the condition of the vessels and boxes in drug-shops, which are all distinguished by peculiar names or labels affixed to them. If that were not done, who could distinguish one from the other among so many different waters, liquors, syrups, oils, powders, seeds, ointments, and the like? In the same way, too, the alchemist in his laboratory marks with their own proper names and labels, all the waters, liquors, spirits, oils, phlegmata, crocuses, alkalis, powders, and then all the different kinds of these, one by one, so that he can select from among them whatever he wants. Without this safeguard it is impossible to remember each separately.

Thus also rooms and buildings constructed by men can be signed with a

number, so that the age of any of them can be at once known by the first glance at the number affixed.

I determined to lay these signs before you in order that when you had mastered these, I might be more readily understood by you in the rest, and that the meaning of each might be plainer and more evident.

Concerning Monstrous Signs in Men.

Many men come to the light deformed with monstrous signs. One man has a finger too many, another a finger too few; and the same may be the case with the toes. Another brings with him from the womb a distorted foot, arm, back, or other member; another has a weak or a hunched back. So also there are born hermaphrodites, androgyni, men, that is to say, possessing both pudenda, male as well as female, and sometimes lacking both. Of monstrous signs like this I have noted many, both in males and females, all of which are to be regarded as monstrous signs of secret sins in the parents. Hence has grown up the old proverb: "The more distorted, the more wicked"; and again: "lame limbs, lame works." These are signs of vices, and rarely denote anything good.

Just as the hangman brands his sons with degrading signs, so also bad parents mark their offspring with mischievous supernatural signs that people may be more cautious when they see the example of wicked men who carry tho stigmata in their forehead or cheeks, or in defective ears, fingers, hands, eyes, or tongues.

Each of these signs of infamy designates some particular vice. If there is a stigma burnt into the face of a woman, or if there be a lopping off of the ears, it, for the most part, indicates theft. Loss of fingers tells of cheating gamblers. The loss of a hand indicates violators of peace. That of two fingers points out perjury. The loss of an eye indicates that people engage in sharp and subtle crimes. The cutting off of the tongue designates blasphemers and calumniators. So you can recognise those who are called mamelukes, or deniers of the Christian religion, by a cross burnt into the heel of their feet, because they denied Christ their Redeemer.

But let us dismiss these matters and return to the monstrous signs brought about by wicked parents. It should be known that all monstrous signs are not produced only by the progenitor, but frequently also from the stars of the human mind, which perpetually at all moments, with the Phantasy, Estimation, or Imagination, rise and set just as in the firmament above. Hence, through fear or fright on the part of those who are pregnant, many monsters are born, or children signed with marks of monstrosity in the womb of their mother. The primary cause of these things is alarm, terror, or appetite, by which the imagination is aroused. If the pregnant woman begins to imagine, then her bosom is borne round in its motion just as the superior firmament, each movement rising or setting. For, as in the case of the greater firmament, the stars of the microcosm also move by imagination,

until there comes a sort of bounding, in which the stars of the imagination produce an influence and an impression on the pregnant woman, just as though one should impress a seal or stamp a piece of money. Whence those signs and birthmarks derived from the lower stars are called "impressions." About these matters many men have philosophised and tried to form from them a solid judgment, without being able to do so. For these things adhere to, and are impressed on, the fœtus in proportion as the stars of the mother press frequently or with violence on the fœtus, or the desire of the mother is not satisfied. If the mother, for instance, longs for this or that kind of food, and is unable to get it, the stars are, as it were, suffocated in themselves, and perish. That desire abides with the unborn child throughout all its life, so that it is impossible ever to satisfy it. The same reason explains other matters, too, which we must not discuss here at too great length.

Concerning the Astral Signs in the Physiognomy of Man.

The signs of physiognomy derive their origin from the higher stars. This science of physiognomy was held in the highest esteem by our ancestors, and among the first by the heathens, Tartars, Turks, and the rest, whose custom it is to sell men and slaves; nor was it altogether lost among Christians. Many errors, however, which had not yet been perceived by anyone, crept in with it when every fool and every clown took upon himself to judge offhand about everything. It is marvellous that these mistakes were not found out from the evil deeds and limited powers of the men themselves.

Now if anyone at this point argues against us, saying, "The signs of physiognomy are from the stars, but no one has the power of compelling or urging on the stars," he does not speak amiss. Yet, this difference must be noted at the outset, that the stars compel one and do not compel another. This ought to be known, who it is that can rule and coerce the stars, and also who is governed by the stars. The wise man can dominate the stars, and is not subject to them. Nay, the stars are subject to the wise man, and are forced to obey him, not he the stars. The stars compel and coerce the animal man, so that where they lead he must follow, just as a thief does the gallows, a robber the wheel, a fisher the fishes, a fowler the birds, and a hunter the wild beasts. What other reason is there for this, save that man does not know or estimate himself or his own powers, or reflect that he is a lesser universe, and has the whole firmament with its powers hidden within himself? Thus man is called animal and unwise and the slave of all earthly things, when, nevertheless, he received from God in Paradise the privilege of ruling over and dominating all other creatures, and not of obeying them. So it was that God created man last, when all other things had been made before him. This right was afterwards lost by the Fall. Yet, the wisdom of man was not made servile, nor did he lose his freedom. It is right, then, that the stars should follow him and obey him, not he the stars. And although he is the son of Saturn, and Saturn is his parent, still he can withdraw himself from him, and

so conquer him that he becomes the offspring of the Sun, and can thus subject himself to another planet, and make himself its son. It happens much in the same way to him as to the miner, who for a long time has hired out his labour to the master of the mines, and managed his department righteously at peril of his life. At length he holds this discourse with himself: "Are you going to spend all your life underground and endanger your body, nay, your very existence, by continuous labours? I will seek release from my master, and follow another where my life shall flow pleasantly on, where I shall have plenty of food and drink, where my garments may shine, where no work and much reward shall be given to me, and where I shall not be oppressed by the mountain overhanging me." In this way he can constitute himself lord where otherwise he would remain all his life a slave and mercenary, wasting away with hard labour and scanty food.

Moreover, as you have now perceived that man rules the stars, and can free himself from a malignant planet and subject himself to another better one, from slavery pass by virtue to freedom, and rescue himself from the prison of an evil planet, so also the animal man who is the son of Sol, Jupiter, Venus, or Mercury, can withdraw himself from that benignant planet and subject himself to Saturn or to Mars. This man is like one who, fleeing from a college of religions, and being tired of their soft life, becomes a soldier, or in other respects a man of no esteem, who must afterwards spend all his life in pain and care. Such, too, is the rich man, who, out of mere levity, wastes all his goods unjustly, gambling, feasting, keeping evil company, until at last, when all is gone, he comes to want, and in miserable conflict with discreditable poverty he deservedly rouses laughter and contempt in all, so that you hear even from the boys in the streets: "Look at yonder worthless man, who, when he could have been master, scorned dominion and preferred to be a slave, a beggar, a servant of servants, so that he cannot now even aspire to his dominion." It is to this that a bad star or a bad parent has led him. Had he not been foolish and wicked, he would not have left to the stars so unquestioned a dominion over himself, but he would have struggled against them. And, although of himself he had not known how to fight against his stars, yet he could have turned his mind to the examples of other men, thinking thus within himself: "See how rich this man was; but by foolish and shameful enterprises he involved himself in mere poverty!" Again, "This or that man lived splendidly, and without any great bodily labour; but, though having got good food and ample pay, he was not able to bear his fair fortune. Now he has to live frugally and sordidly. In place of wine he has to drink water, and whilst his daily labour increases his income is diminished." How often must such a man thus address himself: "What have I done? How have I thrown myself headlong down by wasting prodigally the substance I had collected and acquired? Who will restore it to me? If I could only recover what I have lost, quite another mode of life should be begun, and so I would learn wisdom from my own loss, and compensate for my evil deeds

by wiser counsel for the future." But it is well to know that nobody grows wise from his own loss. He who is wise has learnt wisdom from another's loss, not from his own. He who has wasted his substance once will waste it again. He who perishes once, perishes again. He who once throws the dice will throw them again. The man who has once thieved and cheated the gallows tries to steal a second time. So he thus thinks within himself: "My undertaking has succeeded once and again, why should it not succeed a third and a fourth time? If God has once restored what had perished, He will restore it a second and a third time. If in my first misery I have not been deserted, I shall not be in my second or my third." All this does the animal man who is the servant and slave of the stars; who is swayed backwards and forwards by the stars like a reed in the waters. This is the reason why he has to spend his life in misery and so to die in dishonour. Who, then, would bear so disgraceful a slavery and not extricate himself from so squalid a prison? For by bringing to bear his own wisdom, and with the help of his star, anyone can free himself. Look at the matter thus: A fowler, relying on his own prudence, and by the assistance of his star conquering another star, has no need to pursue birds, for the birds will follow him, and though their nature rebel they will fly together to unaccustomed places. In like manner, to the fisherman at his ease and relying on his wisdom, the fishes will swim of their own accord, so that he can catch them with his hands. The hunter exerting his wisdom by means of his star so collects the wild beasts that he has no need to pursue them; they pursue him, contrary to the guidance and impulse of Nature. And so also with other living creatures.

In order to grasp these things it must be remembered that stars are of two kinds, terrestrial and celestial. The former belong to folly, the latter to wisdom. And as there are two worlds, the lesser and the larger, and the lesser rules the larger, so also the Star of the Microcosm governs and subdues the celestial star. God did not create the planets and stars with the intention that they should dominate man, but that they, like other creatures, should obey him and serve him. And although the higher stars do give the inclination, and, as it were, sign man and other earthly bodies for the manner of their birth, yet that power and that dominion are nothing, save only a predestined mandate and office, in which there is nothing occult or abstruse remaining, but the inner force and power is put forth through the external signs.

But to return to our proposition concerning the physical signs of men: know that these are twofold, like indeed in outward form, but dissimilar in power and effect. Some are from the upper stars of heaven; others from the lower stars of the microcosm. Every superior star signs according to birth up to mid-age. That signature is predestined, and is not without its own peculiar force. It is attested by a man's nature and condition of life. But whatever the lower star of the microcosm signs from birth has its origin from the father and the mother, as often as the mother affects by her imagination or

appetite, her fear or dread, the unborn child in her body with supernatural signs by means of their own close contact. These are called mothers' marks, or uterine marks. We have spoken of these before, so spare ourselves the labour of repetition, since it is our purpose to treat of physiognomical signs alone, among which we understand those signs of men the like whereof neither the father nor the mother have borne in their body. Of this class are black or grey eyes, too small or too large ; a long, crooked, or sharp-pointed nose ; hollows in the jaws, high cheekbones, a flat or broad nose, small or large ears, a long neck, an oblong face, a mouth large and drawn down ; hair thick or fine, abundant or scanty, black, yellow, or red, etc. Of these signs, if one or more appear in a man, be sure that he will not lack the qualities signified thereby. Only you must judge them according to the rules of physiognomy, and have had experience in the art of signature, according to which you can judge a man by outward signs.

Descending, then, to the practical portion of our subject, let us repeat a few of these signs and their signification.

Black eyes not only denote a healthy constitution, but also, for the most part, a constant mind free from doubt and fear, healthy and hearty, truthful and loving virtue.

Grey eyes are the sign of a crafty man, ambiguous and inconsistent. Weak eyes denote good counsels, clever and profound deliberations, and so on. Bright eyes, which turn up, down, and to both sides, denote a false, clever man, who cannot be deceived, faithless, shirking work, desirous of ease, seeking to gain his livelihood in laziness, by gambling, usury, impurity, theft, and the like.

Small eyes, somewhat deeply sunk, indicate weak sight, and often impending blindness in old age. At the same time, they denote brave men, bellicose, crafty, and adroit, factious, capable of enduring misfortune, and whose departure from life is, for the most part, of a tragic character.

Large eyes denote a greedy, voracious man, especially if they project far out of the head.

Eyes which are constantly winking indicate weak sight, a timid and careful man. Eyes which move quickly hither and thither, under the glance of men, indicate an amorous heart, provident, and of quick invention.

Eyes continually cast down show a reverential and modest man.

Red eyes show a bold, brave man.

Glittering eyes, which do not move readily, point out a hero, a high-minded, brave, quick man, formidable to his foes.

Large ears indicate good hearing, retentive memory, attention, diligence, a healthy brain and head.

Depressed ears are a bad sign. For the most part they point out a man who is malicious, fraudulent, and unjust. They indicate bad hearing, treacherous memory, and a man who readily exposes himself to danger.

A long nose curved downwards is a good sign. It denotes a strenuous, provident man, occult and cruel, but still just.

A flat nose indicates a malignant man, false, lustful, untruthful, inconstant.

A pointed nose indicates a changeable person, given to mockery.

A long nose shews a man slow in business, yet of good odour.

Hollow cheeks denote a talkative, contemptuous, contentious person.

An oblong chin, with a long face, shews an irritable man, one who is slow at his work.

A cleft chin shews a faithful man, officious, of abstruse and diversified speech; a man who says one thing and means another; quick at anger, yet repenting of his passion; ingenious and inventive.

A large, wide mouth shews a gluttonous man, insipid, fatuous, shameless, and fearless. A small mouth indicates the contrary.

Lips drawn together, when the upper is larger than the lower, shew an irritable man, pugnacious, courageous; yet for the most part of heavy, unchaste character, like a pig.

Lips larger below shew a dense, stupid, slow person.

Concerning the hair of the head or beard, the signs are not very plain, since experience teaches us that this can be marvellously varied according as it is black, yellow, red, or white, and hoary, or curled. So, too, hair is rendered soft or hard according to people's wish. Hence it is that many persons, who are in other respects well-skilled in physiognomical science, are woefully deceived when they rashly pass judgment from the hair, imputing to the stars what should rather be ascribed to men. Still it cannot be denied that hair firmly fixed on the head shews good health, both of the head and of the whole body. This is why people who buy horses pluck their tails so as to judge of their soundness. So swine are judged by their bristles, fish from their fins and scales, a bird by its feathers, and so on.

If the neck is unusually long, transcending the limits of Nature, it denotes a careful man, prudent and attentive.

Broad shoulders and back shew a man who is strong for carrying and moving things. Muscular arms also shew a man who is strong and robust in beating, thrusting, throwing, and the like.

Hard hands bespeak a laborious, mercenary man; soft hands, the contrary.

A short body and long legs denote a good runner, one who is easily satisfied with food and drink, but generally a man of somewhat short life.

Large and conspicuous veins in a man below mid age signify that he is full of blood and bodily juices; but above middle age they denote a sickly man who is still, however, vivacious.

With reference to manners and gesture, a man cannot be so easily known or judged from these. Experience teaches us that these can be changed every moment, so as to deceive the signator, and lead him to an erroneous judgment.

This is what astronomers hitherto have not observed with sufficient accuracy. The signator's business is not always to look at the manners and actions, but rather at other bodily signs which are fixed, and cannot by any artifice be counterfeited or changed. For if red hair, motion of the forehead and eyebrows, frequent agitation of the mouth, strong and deliberate step, and light spirits, indicate of necessity a generous, active man, or soldier, such as any one could easily shew himself by his own activity, and so stand better when put to the proof, and command higher pay, so, likewise, must judgment be passed on other manners which betoken wisdom, folly, truth, falsehood, fortune, victory, and the rest.

Concerning the Astral Signs of Chiromancy.*

Concerning the signs of chiromancy it should be held that they arise from the higher stars of the seven planets, and all of them ought to be learnt and judged from the seven planets. Now, Chiromancy is a science which not only inspects the hands of men, and from their lines and wrinkles makes its judgment, but, moreover, it also considers all herbs, woods, flints, earths, and rivers—in a word, whatever has lines, veins, and wrinkles. But neither is this science free from its errors, which astronomers have alleged against it. For they have assigned the fingers of both hands to the planets and the principal stars, when, notwithstanding, there are on one hand only five fingers but on both hands ten, while the planets are only seven in number. How can these things be made to agree? Now, if there were seven fingers on each hand, then it might be possible to assign a finger to each of the planets. It happens, indeed, very often that a man only has seven fingers on his two hands, the others being lost by some accident. But still the stumps exist, and, moreover, the persons were not born in this way, so this matter has no relevance here. Besides, if it did so happen that a man was born with seven fingers either on one hand or on both, that would be a monstrous birth, not according to Nature, and therefore not to be assigned to the stars. So here, again, no comparison can be instituted. It would have been better, then, that the planets should cast lots and see which two ought to retire. This, however, could not be done, because the planets had neither dice nor lots up in the firmament; so one wonders who took it upon him to allot the planets by name, giving the thumb to Venus, the index finger to Jupiter, the middle

* It is a great error to suppose that chiromancy is concerned only with the hands, for it includes the significance of the lines upon the entire body. Nor is it confined to the body of man, for it deals also with the trunks of trees, and with the tracery upon the leaves of trees. Every peculiarity of line, whether in leaves or in human hands, has its special meaning. No man deserves to be called a doctor who is ignorant of chiromancy, because, for example, the presence upon the hand of those lines which are called *lineæ architectæ*, indicate that the person will be likely to die of the colic; but then there are certain leaves which possess corresponding lines, and these leaves are the cure of colic. So also the *linea ancora* is the line of apoplexy, and this line is found in the acorus (*i.e.*, the sweet flag), which is a medicine of apoplexy. . . . Thus by the same sign Nature indicates the existence of the disease and its remedy. But the physician who is ignorant of the sign is ignorant of everything. But as physiognomy is both outward and inward, so there is an internal and external chiromancy, and that which is without is an evidence of that which is within.—*Duo Alii Libri de Podagricis Morbis*, Lib. I. I have frequently indicated that chiromancy is the inventress of arts, if it be cabalistically treated.—*De Peste*, Lib. II., *Pref.*

finger to Saturn, the ring finger or medicus to the Sun, and the little finger to Mercury. Meanwhile, Mars and the Moon were, so to say, banished. Would one be surprised, then, if in righteous indignation Mars bade his sons kill that allotter, or keep up continual strife with him: or who would wonder if the Moon weakened his brain, or took his wits away altogether? And this is the first error which we say has been committed in chiromancy.

The second mistake is this. It often happens that the original natural lines of the hands are changed by injuries or chance accidents, or become larger or smaller, or appear in other places. It is just as if a road were blocked with some obstacle, or covered by a mountain falling on it, or destroyed by an inundation. Men would make another road near it. So with the old lines of the hand. Sometimes when wounds or ulcers have healed, along with the new flesh new lines come into existence, and the old ones are altogether blotted out. In the same way, by hard work lines are obliterated, or those which were there originally enlarged. Then the same thing happens as with trees. If the growing tree puts forth many leaves, a number of them are cut off and the tree is enlarged in size.

And now let us pass on to the practical part of this science of chiromancy, and in a few words disclose our opinion. I would have you know that, so far as relates to hands, I make no change therein, but I acquiesce with the observations and descriptions of the ancients. But in this practical chiromancy I have undertaken to write only of those matters which the ancients have not mentioned, as concerning the chiromancy of herbs, woods, stones, and the like. And first it should be remarked that all herbs, of whatever kind they are, belong to one and the same chiromancy. If their lines are unlike, and appear greater or less in some than in others, this is through their age. We expressly avow that the chiromancy of herbs confers no other advantage beyond enabling us to know the age of any herb or root.

Someone in arguing may urge and assert that no herb as long as it adheres to its root can be more than four or at the most five months old, that is, reckoning from May to autumn, after which time every herb perishes and drops away from its root. To this I answer that a unique virtue exists in the root, which is the first essence and spirit of the herb, from which the herb is born and sustained to its predestined time, and so is exalted right up to the production of the seed. And this is the sign or indication that the virtue goes back again into the root, and thus the herb withers. But as long as that spirit, which is the supreme force of the herb, remains in the root, every year that herb is renewed, unless it happens that the spirit is taken away, and withers along with the herb. Then for that herb there is no renovation. The root is dead, and no longer has life in it. But how that spirit is taken away with the herb from the root, or with the root from the earth, so that its virtue goes back either into the root, or from the root into the earth, must not be discussed in this place. It is Nature's sublime mystery, not to be put forth for the benefit of sophistical physicians, for whom such secrets are not only a

mockery but a cause of contempt. What we here omit we will give in the Herbary.*

The younger and less full of years herbs are the more do they excel in their force and their faculties. For just as man is enervated by old age, and fails in his natural powers, so also is it with herbs.

But in order to know what is the chiromancy, and what the age, of herbs and similar bodies, long experience is required, since the number of years is not written upon them but has to be divined solely by chiromancy, as we have said. Now chiromancy supplies, not numbers, not letters, not characters, only lines and veins and wrinkles, as a means of reckoning the age. The older anything is the larger and more visible are the lines exhibited, and the virtue and operation of the thing are less active. For as a disease of one month or one year is more easily cured than one of two, three, four, five months or years, so a herb of one year more quickly cures its disease than one of two or three years. And on this account for old ills young herbs and those which have fewer years should be given, but for recent ailments old herbs and medicines should be administered. For if old be joined to old, the blind leads the blind and both fall into the ditch. This is the reason why many medicines are inoperative. They are in the body and they fill the limbs, but only as mud sticks to the shoes. Hence the diseases are often doubled.

Now here is a matter which, up to this time, has never been thought out by unskilled sophists, while by their ignorance they have lost more patients than they cured. The very first thing you physicians ought to know is that the medicine must always be younger than the disease, in order that it may get the better of it, and be stronger in expelling it. If the medicine be more powerful than the disease, the disease will be expelled, as fire will be extinguished by water. If the disease be more powerful than the medicine, that medicine turns into a poison, and afterwards diseases are redoubled and made more severe. Thus, if the disease be of iron, the medicine must be steel. Steel cannot be conquered by iron. The more powerful conquers, the weaker is subdued.

Although, therefore, it was no part of my original plan to write in this place anything about medicine, still, for the sake of true and genuine physicians, I could not pass by these matters in silence.

Concerning Mineral Signs.

Minerals and metals, apart from fire and dry material, show their indications and signs which they have received at once from the Archeus and from the higher stars, each one telling its genus by differences of colour and of earth. The mineral of gold differs from the mineral of silver. So the mineral of silver differs from the mineral of copper. The mineral of copper differs

* The *Herbarius Theophrasti*, concerning the virtues of berbs, roots, and seeds, etc., will be found in the second volume of the Geneva folio. It is an incomplete treatise whicb discusses the virtues of black hellebore, persicaria, common salt, carduus angelicus, corals, and the magnet. The portions of this treatise to which reference is made above. and again upon p. 189, are apparently in the missing fragments.

from the mineral of iron. So also that of iron from that of tin and of lead. And so with the rest. None can deny, then, that by means of chiromancy all minerals and metallic bodies of mines, which lie hid in secret places of the earth, may be known from their external signs. That is the chiromancy of mines, veins, and lodes, by which not only those things which are hidden within are brought forth, but also the exact depth and richness of the mine and yield of metal are made manifest. Now, in this chiromancy three things are necessary to be known, the age, depth, and breadth of the veins, as was said just now in the case of herbs. For the older its veins, the richer and more abundant in metals is the mine. On this subject one would reason that all metals, so long as they remain in their matrix, so long do they continually increase. Whence this, too, is clear, that any growing thing, even when placed outside its matrix, cannot grow less, but is thereupon increased, that is, multiplied, and goes on growing in substance, measure, and weight up to its predestined time. This predestined time is a third part of the destined age of all minerals, vegetables, and animals, which are the three chief genera of all terrestrial things. That which is still in its matrix grows until the matrix itself dies. For there is a predestined period of living and dying, even for the matrix, provided only it be subjected to the external elements. That which is not so subjected has no period, no terminus, other than the elements themselves have, together with which, at the last day, which is the end of those elements, it will perish. Hence it follows that all things which are below the earth are in the least possible degree subjected to the elements. For they feel neither heat nor cold, moisture nor drought, wind nor air, by which they may be destroyed. Bodies so situated, therefore, cannot decay, nor do they gather rust and corruption, nor perish, so long as they remain below the earth in their own chaos. This relates so far to metals and stones, but it applies also to men, many of whom have supported themselves for a hundred years in mountain-caves, as did the giants and the pigmies, concerning each of which I have written a book.*

* Men of abnormal height, who, however, are naturally begotten, are distinguished by Paracelsus from another genus of giants who belong to a wholly different order of existence. Concerning the generation of giants and dwarfs, it is to be understood that giants are born of sylphs and dwarfs of pigmies. These beget various monsters, and it should be noted that both giants and dwarfs are possessed of remarkable strength. They are not a *lusus naturæ*, but are the product of a singular counsel and admonition of God. They deserve consideration on account of the great achievements they accomplish. Moreover, being monsters, produced in a singular manner by God, they finish without offspring as to body and blood. Their parents have not the same kind of soul as themselves. They are the offspring of animal men, and hence it follows that they have derived no souls from their parents, although they have performed many great deeds, have studied the truth, and have accomplished many other things, from which the possession of a soul might be argued. God, had he so willed, could have endowed these creatures with souls, as is shewn by the union of man with God, and of the nymphs with man. Whatsoever good deeds they may perform they are not on that account partakers of salvation. While it is impossible to give a clear account of the way in which such monsters originate, it may be compared to the generation of erratic stars and comets in the firmament, and it is actually the result of a *bizarre* conjunction in the firmament of the Microcosm. . . . . Pygmies, like other creatures of this kind, that is, like nymphs, sylphs, and salamanders, are not of the generation of Adam, though they bear the likeness of men, but are equally diverse from humanity and from all animals. . . . . Pygmies and Ætnæi are regarded as spirits, and not such creatures as they appear. But it should be understood that they are what they seem to be, namely, beings of flesh and blood. At the same time, they are as agile and swift as a spirit. They know all future, present, and past things, which are not present to the eyes themselves, but are hidden. Herein they serve man by revelations, premonitions, etc. They have reason in common with man, save only the soul. They have the knowledge and the reason of spirits, if we except those things which pertain to the nature of God. Endowed with such great

In pursuit of our present purpose, then, I pass on to a very brief practical exposition concerning the chiromancy of mines. The deeper and broader the veins are, the older they may be known to be. When the tracts of the veins are stretched to a very long distance, and then gape, it is a bad sign. For as the courses of the veins gape, so the mines themselves gape, which fact they indicate by their depth. Although sometimes good mines are found with a very deep descent, they for the most part vanish more and more, so that they cannot be worked without great expenditure of toil. But where those veins are increased by other accessory ones, or in any other way are frequently cut off, that is a fortunate sign, indicating that the mines are good not only on the surface, but that they increase in depth and are multiplied, so that they are rendered rich mines, and yield most ample treasure.

It is not altogether beside the subject that many metallurgists praise those mines whose course is straight down, and which verge from east to west. But then reasoning and experience in the mines themselves also teach us that very often veins which stretch from west to east, or from south to north, or, contrariwise, from north to south, abound in metal no less than others. No one vein, then, is to be preferred before another, nor is there any need of further discussion on this point.

Then with regard to those signs which concern the colours of minerals and inner earth, one may dispose of them briefly. When miners come upon clayey soil, from which issues a vein of pure and fresh metal, that is a very good sign, indicating that the metal of which this is a vein is now not far off.

In like manner, if the earth which is dug out lacks metal, indeed, but is fat, and of a white, black, clayey, red, green, or blue colour, then that, too, is a favourable sign of good metal lying hid there. Then the work which has been begun should be briskly carried on, and no pause be made in the digging. Metallurgists especially regard brilliant, glittering, and primary colours, as are green earth or chrysocolla, copper green, lazurium, cinnabar, sandarach, auri-

powers, they lead and attract man to make experiments and to believe about Him. Wherefore God hath produced them that man may learn from his acquaintance with them what great things God works in those creatures. Gnomes (*i.e.*, pigmies) are like unto men, but of stunted stature. They are about half the size of man, or a little taller. . . . The devil at times enters into gnomes and ministers unto them. . . . . If the gnomes have once bound themselves to our service, they abide by their bargain, but they require to be served in turn, and those things ought to be given to them which they request. If the pacts into which we enter with them are fulfilled on our part, they remain sure, constant, and faithful in their office, especially in obtaining money. For the gnomes abound in money, which they coin themselves. You must understand this as follows: The spirit has whatsoever it wishes, for if a gnome desires a certain sum of money, he obtains it and has it. In this manner they give money to many men inhabiting the mountains to persuade them to go away again. The lot of man is very hard. To hope or to wish will profit him nothing, and he must work for all he wants; but the gnomes have whatever they seek without any labour in getting or preparing it. . . . . Concerning their day and night, their sleeping and waking hours, the case is exactly the same with them as with men. Moreover, they have a sun and a firmament no less than we have, that is, the gnomes have the earth which is their chaos. This is to them only as our atmosphere; it is not as earth to them in our sense. Hence it follows that they see through the earth just as do we through the air, and the sun shines for them through the earth as it does for us through the air. For they have the sun, the moon, and the whole firmament before their eyes, even as have we men. . . . The gnomes dwell in the mountain chaos in which they construct their dwellings. Hence it is that very often arches, caves, and other similar constructions are found in the earth, about a cubit in height, the work of these men, and their habitation. . . . . The gnomes pass through solid rocks or walls like spirits, for all these things are to them chaos, that is, nothing. . . . . The more crass the chaos, the more subtle is the creature, and *vice versa*. The gnomes have a crass chaos and are therefore subtle. — *De Pygmæis et Salamandris.*

pigment, litharge of gold and silver, etc. Nearly every one of these points out some special metal and mineral. Copper green, chrysocolla, and green earth indicate generally copper. So, too, lazurium, or white arsenic, or litharge of silver, mark copper metal. So cinnabar and sandaracha point out sometimes gold, sometimes silver, or the two together in combination. In the same way, auripigment, red sulphur, or litharge of gold, for the most part portend gold. So, too, when chrysocolla with lazurium, or lazurium with chrysocolla and auripigment, are found mixed and combined, excellent and rich minerals are generally indicated. When stones and earths of a ferruginous colour are seen they certainly designate iron mineral.

It should be remarked that it sometimes happens the Archeus of the earth occasionally thrusts forth, and, as it were, eructates from the lower earth some metal or other through a hidden burrow. That is a good sign when it appears. Diggers, therefore, should not relax their labours in face of such a sure and remarkable hope of hidden metal. If, moreover, slight metallic foliage, like talc, adheres to the stones or rocks, it is a sure and a good sign.

Then as to coruscations. These should be carefully and closely watched. They are most certain signs that lodes of some particuliar metal exist, also of their extent, and of that special kind of metal. Here, too, it should be remarked, that metals of this kind have not yet come to perfect maturity, but are still in their first essence. In whichever direction the coruscation extends, in that direction also extends the metallic lode.

Then, too, it must be known that the coruscation is threefold in colour, as, for instance, white, yellow, and red, for example, like white Luna. In this way all the metals which they indicate to us are recognised. A white coruscation points out white metals, such as tin, lead, silver. A red coruscation denotes red metals, like copper and iron. A yellow coruscation reveals golden metals. Add to this that a slight and subtle coruscation constitutes the best sign. It is just as you see in the case of trees; where there are fewer flowers you get better fruit. So, too, small and subtle coruscations indicate subtle and excellent metals, and *vice versa*. In addition to this, it should be known that so long as these effulgences appear, be they great or small, of this colour or of that, the metal is not yet perfect and matured in its ore, but still exists in its first essence, like the man's sperm in the matrix of the woman.

Now let us explain what this coruscation is. It appears sometimes during the night in mines like scintillating fire, just as gunpowder, scattered in a long train and when lighted at one end, exhibits a protracted fire. In the same way, this coruscation, or scintillation, is borne along its own track, sometimes from east to west, or, contrariwise, from west to east, from south to north, or *vice versa*. And so, a straight line drawn from any hour or part of the mountain map towards the nearest hour opposite, divides into two parts the map which is marked off into twenty-four hours or parts.

All these coruscations, whenever they appear, afford most reliable indications of metallic lodes, so that from them may be recognised the metals too

as certain gifts of God coming out of the earth. For whatever God has created for the use of men that He has put in man's hands as a property, so that it should not remain hidden. And although He has created it hidden, yet He has added these particular outward signs leading to investigation. Here His marvellous predestination ought to be recognised. Just in the same way, men themselves, if they bury treasure, mark the place by the addition of some sure signs. They bury them at landmarks, or statues, or fountains, or some other object, so that, if need be, they themselves can find them again and dig them up. The old Chaldeans and Greeks, if in time of war they feared siege and exile, buried their treasures, and only marked the place by proposing to themselves a certain fixed day, hour, and minute of the year. They waited until the sun or the moon cast a shadow there, and in that spot they hid or buried their treasures. This art they called Sciomancy or the Art of Shadows. From these studies of shadows many arts arose, and many occult matters were revealed, as, for example, the methods by which all spirits and sidereal bodies might be distinguished. These are the infallible cabalistical signs; and should be carefully watched.

You must take particular care, however, not to let yourselves be beguiled by divinations obtained through uncertain arts. These are vain and misleading; and among the first of them are the divining rods, which have deceived many miners.* If they once point out rightly, they deceive ten or twenty times. In like manner, no confidence should be placed in other deceitful signs of the devil, which appear by night or at unseasonable times, out of the way of Nature, such as are spectres, visions, and the like. Be sure that the devil gives these signs merely from fraud, and with intent to trick you. No temple is ever built where the devil does not have his chapel; no chapel where he has not his altar. Good seed is never sown, but he sows tares along with it. That is the meaning of visions and supernatural apparitions, the same in all, be it in crystals, mirrors, waters, or the like. The ceremonial necromancers have foully abused the commandment of God and the light of Nature itself in this way. Visions, however, are not altogether to be rejected. They have their place, but only when produced by a different method. We are now no longer living in the first but in the second generation. By us Christians then, in our regenerate state, ceremonies and conjurations are no longer to be used, as the ancients used them in the Old Testament, for these people were living in the first generation. These men were foreshadowings for us who were to live under the New Testament. Whatever, therefore, the ancients, under the Old Testament, or the first generation, accomplished by means of ceremonies and conjurations, all these things, we Christians, who belong to the second generation, and live under the New Testament, ought to obtain by prayer, that is, we should seek it in faith by praying, knocking, and asking. In these three primary points consists the whole foundation of magical and cabalistical

* Elsewhere Paracelsus says that it is faith which turns and directs the divinatory rod in the hand.--*De Origine Morborum Invisibilium*, Lib. I.

science, by which we can gain all we desire, so that to us as Christians nothing shall be impossible. Having written, however, much about this in the book on Visions,* and other cabalistical institutions, I forbear to repeat it here. See how wonderfully, in His love for us, Christ, the Son of God, works in us, faithful Christians, by means of His angels, and how fraternally He associates with us. We are very angels, and members of Christ, since He is our head, that is, He lives in us, that so we may live in Him, as is handed down in the books on The Lord's Supper.†

But to return to our subject of mineral signs, and especially to the coruscations from metallic veins. Know that as all metals which are still in their first essence exhibit their coruscations, that is, their signs, so also the Tincture of the Philosophers, which transmutes all imperfect metals into good silver or gold (white metals into silver, red into gold), removes all these particular signs, such as coruscations, if it be astrally perfected and prepared. For as soon as ever a little morsel of it is thrown into the fused metal, so that the two meet in the fire, a natural coruscation or brightness arises, just as fine gold or silver flashes in the vat or vessel, which is a sign that this gold or silver is free and purified from all admixture of other metals. But how our Philosophic Tincture is rendered astral is a thing that ought to be learnt. Every metal, so long as it lies hid in its first essence, has its own peculiar stars. Gold has the stars of the sun; silver the stars of the moon; copper

* Natural sleep is the rest of the body, which recuperates its wasted energies. Now the day pertains to bodies, night to spirits; bodies work in the day, spirits at night. The sleep of the body is the waking time of the spirit, for the two cannot operate together, being contraries, and mutually incompatible things. Whatsoever is done by the body during sleep is really performed by the spirit. For some speak and give answers in their sleep; some arise and walk therein, but all this is done by the spirit governing the body. Hence it happens that if such a man be called by his name, he wakes up because the spirit in him is terrified by being called by the name of the man, for spirits are no less terrified by the voice of a man than are men by the voice of a spirit. The man in baptism receives a name, but not so the spirit. Therefore the spirit is terrified when the man is called. Hence sleep-walkers should by no means be left alone in their rooms, and this is especially the case with those who are afflicted by the Sagæ, *i.e.*, divinatory spirits, because it is of great importance that such persons should be addressed by name, for thus all nocturnal divining spirits, and all formidable spectres, and all waking visions, are driven away and dispelled. But it should be noted, that all men, promiscuously, who talk in their sleep, are not thus to be invoked or shouted at, because they may be in communion with a spirit whose voice is not heard. For, although the spirit voice may be much clearer than that of humanity, it is not audible commonly by humanity, for the material ear can be, and is, closed by the power of such an intelligence, as is well known to those who divine by nigromancy by means of the spirits of the air, who are intermediate spirits, neither precisely good nor evil. No man holding such a conversation should be disturbed, so long as his accents are cheerful, but if he answers with trembling, fear, and consternation, this is a sign of a bad apparition, and such a person ought to be awakened by shouting. Such conversations are not, however, always conducted with the bodily organs of voice on the part of the sleeper, but also with those of the spirit, in which case there is no audible sound, and this last kind of speech is not only more frequent but of greater importance. It was profoundly investigated by the ancient Magi, who by this means could extract from the spirits of the departed a knowledge of those secrets which they had concealed from the whole world while they yet lived in the body. In this way they became acquainted with the mysteries of Alchemy, Astronomy, Astrology, Medicine, Theology, etc., namely, by direct communication of their spirits with the spirits of those who had professed these sciences on earth. In order to acquire the arcane method of communication with such intelligences, the first requisite is to implore by faith the mercy of God in the matter; then we must, also with faith, make an image of that man with whom we desire to communicate. On the body of such image the name of the man must be written, and also the question to be asked. Put this image at night under your head and sleep upon it. That man himself will then appear to you spiritually, and will answer your questions, teaching you whatever he can. There is, however, a more certain and better manner. This dispenses with the image, and has recourse only to faith and imagination. No danger attaches to this experiment, but it requires great confidence in the validity of the operation. I have several times had practical evidence of its truth. - *De Philosophia*, Tract V.

† A work of Paracelsus, entitled *De Cœna Domini*, exists in the Harleian collection among the MSS. of the British Museum. It is numbered 508, and is a large volume, very legibly written. No printed copy is known to the present editor.

the stars of Venus; iron the stars of Mars; tin the stars of Jupiter; lead the stars of Saturn; quicksilver the stars of Mercury. As soon, however, as they have come to their perfection, and are coagulated into a fixed metallic body, their stars withdraw from every one of these, and leave their body dead. Hence it follows that all the bodies alike are dead and inefficacious, and that the unconquered star of the metals subdues all of them, converts them into its own nature, and so makes them all astral. For this reason, our gold and silver, which are tinged and prepared with our tincture, are much more noble and more excellent for the composition of medicinal arcana, than that gold itself which Nature generates in mines, and afterwards segregates from other metals. So also corporal *Mercurius*, made astrally from another metal, is much nobler and more fixed than common mercury. In the same way you may judge of other metals. I assert, therefore, that every alchemist who has the star of gold, turns all red metals into gold by tingeing them. So by the star of silver, all white metals are turned into silver; by the star of copper, into copper; by the star of quicksilver, into corporal Mercury; and so with the others. How all these stars are prepared by Spagyric art, it is no part of our present purpose to declare. The explanation belongs to the book on the Transmutation of Metals.

So far as relates to the true signs of these, I would have you know that our red tincture, which contains within itself the stars of gold, is of a substance fixed above all consistency, of most rapid penetration, and deepest redness, its powder recalling the colour of the saffron, and its entire body that of the ruby. Its tincture is fusible as resin, clear as crystal, brittle as glass, but very heavy in weight.

The white tincture, which contains the stars of Luna, is, in the same way, of fixed substance, of changeless increment, of consummate whiteness, fluid as resin, clear as crystal, brittle as glass, in weight like the adamant. The star of copper is of supreme citrine colour, like emerald, fusible as resin, and much heavier than its own metal.

The star of tin is whiteflowing as resin, somewhat dark, and suffused with a claylike colour. The star of iron is of remarkable redness, clear as granatum, fusible as resin, brittle as glass, of fixed substance, and much heavier than its own metal. The star of lead is like cobalt, black, but transparent, fluid as resin, brittle as glass, equal to gold in weight, heavier than other lead. The star of quicksilver is of a white, glittering colour, like snow in a deep frost, very subtle, penetrating, and of corrosive sharpness, clear, like crystal, easily melted as resin, very cold to the touch, but extremely warm within the fire, volatile, moreover, and of a substance which easily flies before fire.

From this description you will know the stars of the metals, and you will understand that for the preparation of either tincture, the red or the white, you must take at first, not the body of gold or of Luna, but the first essence of gold or of Luna. If a mistake is made at the outset, all the subsequent work and labour will be thrown away.

Moreover, this fact applies to metals, that each of them in the fire puts forth some peculiar sign by which it can be recognised. Among these are, sparks, flames, brightness, colours of the fire, smell, taste, etc. For instance, in the reverberation of gold or silver, the genuine sign is a brightness above the vessel or vat. When this appears, it is certain that the lead, and other accessory metals, have disappeared in the fumes, and so the gold and silver are thoroughly purified. Iron, which is completely fused in the furnace, sends forth limpid, clear sparks, which rise to a height. As soon as these appear, unless the iron be at once removed from the fire, it will be burnt up like straw.

In the same way, every earthly body exhibits its own peculiar and distinct signs in the fire, whether it has any Mercury, sulphur, or salt, and of which of these three principles it has most. If it smokes before it bursts into flame it is a sign that it contains more Mercury than sulphur. If, on the other hand, it burns with a flame and blazes forth without any smoke, it is a sign that a good deal of sulphur, and no Mercury, or very little, lies hidden within it. This you see take place with fatty substances, as with fat itself, oil, resin, and the like. But if without any flame nothing goes forth through the fumes, it is a sign that much Mercury and very little sulphur exists therein. This you see take place with herbs, flowers, and the like; and also with other vegetable substances and volatile bodies, such as minerals and metals, as yet in their first essence, and not yet mixed with corporeal sulphur. These send forth only smoke, and no flame.

Minerals and metals which in the fire emit neither fume nor flame—that is, neither smoke nor blaze—shew an equal mixture of Mercury and sulphur, and a fixity and perfection beyond all consistency.

Concerning Certain Particular Signs of Natural and Supernatural Things.

We must now, in due course, speak of some peculiar signs, concerning which nothing up to this time has been handed down. In this treatise it will be very necessary that you who boast your skill in the science of signatures, who also wish to be yourselves called signators, should rightly understand what we say. In this place we are not going to speak theoretically, but practically, and we will put forth our opinion comprised in the fewest possible words for your comprehension.

First of all, know that the signatory art teaches how to give true and genuine names to all things. All of these Adam the Protoplast truly and entirely understood. So it was that after the Creation he gave its own proper name to everything, to animals, trees, roots, stones, minerals, metals, waters, and the like, as well as to other fruits of the earth, of the water, of the air, and of the fire. Whatever names he imposed upon these were ratified and confirmed by God. Now these names were based upon a true and intimate foundation, not on mere opinion, and were derived from a predestinated knowledge, that is to say, the signatorial art. Adam is the first signator.

Indeed, it cannot be denied that genuine names flow forth from the Hebrew language, too, and are bestowed upon each thing according to its nature and condition. The names which are given in the Hebrew tongue indicate by their mere bestowal the virtue, power, and property of the very thing to which they belong. So when we say, "This is a pig, a horse, a cow, a bear, a dog, a fox, a sheep, etc.," the name of a pig indicates a foul and impure animal. A horse indicates a strong and patient animal; a cow, a voracious and insatiable one; a bear, a strong, victorious, and untamed animal; a fox, a crafty and cunning animal; a dog, one faithless in its nature; a sheep, one that is placid and useful, hurting no one. Hence it happens that sometimes a man is called a pig on account of his sordid and piggish life; a horse, on account of his endurance, for which he is remarkable beyond all else; a cow, because he is never tired of eating and drinking, and his stomach knows no moderation; a bear, because he is bigger and stronger than other people; a fox, because he is versatile and cunning, accommodating himself to all, and not easily offending anybody; a dog, because he is not faithful to anything beyond his own mouth, and shews himself unaccommodating and faithless to all; or a sheep, because he hurts nobody but himself, and is of more use to anyone else than to himself.

In the same way many herbs and roots have obtained their names. So the euphrasia or *herba ocularis* is thus called because it cures ailing eyes. The sanguinary herb is thus named because it is better than all others to stop bleeding. The scrofulary (*chelidonium minus*) is so called because it cures the piles better than any other herb. And so with many other herbs, of which I could cite a vast number, all of which were named on account of their virtue and faculty, as I have shewn more at length in my Herbary.

Then, again, many herbs and roots got their names, not from any one inborn virtue and faculty, but also from their figure, form, and appearance, as the Morsus Diaboli, Pentaphyllum, Cynoglossum, Ophioglossum, Hippuris, Hepatica, Buglosum, Dentaria, Calcatrippa (*consolida regalis*), Perforata, Satyrion or Orchis, Victorialis, Syderica, Petfoliata, Prunella, Heliotrope, and many others which need not be recounted here, but separately in the Herbary.

The same is true as to the signs of animal matters, because, in like manner, from the blood and its circulation, from the urine and the circulation thereof, all diseases which lie hid in men are recognised. From the liver of a slaughtered animal all its flesh can be judged whether it is fit for food or not. For if the liver be not clear and of a red colour, but livid and yellow, rough and perforated, it is inferred that the animal was sick and that, on this account, its flesh is unwholesome. It is no marvel that the liver indicates this by natural signs. The origin of the blood is in the liver, and hence it flows forth through the veins over the whole body, and is coagulated into flesh. For this reason, from a sickly and ill-affected liver no healthy and fresh blood can be produced, just as from morbid blood no wholesome flesh can be coagulated. But, nevertheless, even without the liver, the flesh, as well as

the blood, can be distinguished. If both are sound, they have their true and natural colour, which is purple and bright, with no extraneous colour, such as yellow or livid. These extraneous colours always indicate sickness and disease.

But, moreover, there are other signs which are worthy of our wonder, when, for example, the Archeus is the signator and signifies on the umbilical cord of the fœtus by means of knots, from which it can be told how many children the mother has had or will have.

The same signator signs the horns of the stag with branches by which its age is known. As many branches as the horns have, so many years old is the stag. Since there is an addition of a new branch to the horn every year, the age of the stag can be set down as twenty or thirty years.

So, too, the signator marks the horns of the cow with circles from which it is known how many calves she has borne. Every circle indicates one calf.

The same signator thrusts out the first teeth of the horse so that for the first seven years its age can be certainly known from its teeth. When the horse is first born it has fourteen teeth, of which it sheds two every year, so in seven years all of them fall out. For this reason a horse more than seven years old can only be judged by one who is very skilled and practised.

The same signator marks the beak and talons of a bird with particular signs, so that every practised fowler can judge its age from these.

The same signator marks the tongues of pigs with blisters, by which their impurity can be known. If the tongue is foul, so is the whole body.

The same signator marks the clouds with different colours, whereby the tempests of the sky can be prognosticated.

So also he signs the circle of the moon with distinct colours, each one of which has its own special interpretation. Redness generally indicates coming wind ; greenness or blackness, rain. The two mixed, wind with rain. At sea this is a sign which generally portends tempests and storms. Brightness and clear whiteness are a good sign, especially on the ocean. For the most part they presage quiet and serene weather.

So far we have confined our remarks to natural signs. With regard to supernatural signs this is a matter of special science and experience, as Magical Astronomy and the like.*

Now here it is most necessary to have certain knowledge. Hence proceed many arts, such as geomancy, pyromancy, hydromancy, chaomancy, and

* Whatsoever Nature generates is formed according to the essence of the virtues, which is to be understood as follows: According to the soul, the property, and the nature of any man, the body is constituted. For this proverb is often quoted—the more distorted the more wicked. Adam was originally created in such a manner that he was without inherent vice of body or soul; but when he distinguished between good and evil, Nature then commenced to mark each person according to his constitution. Adam was well pleasing to God before he knew good and evil; but afterwards, God repented having made man. Man was therefore made subject to the rule of Nature, so that Nature treats him even as a flower of the field, which she marks, and so makes recognisable to all. Man also is marked like a flower of the field, so that one person can be discerned from another, after the same way that flowers and all growing things are distinguished each from each. And since there is nothing hidden in man but must be revealed, this must be made known by three different methods—either by the signs of Nature, or the proper mark, or by the judgment of God. Omitting the two latter, I will speak of the first, that is to say, the signs which are exhibited by Nature. It is

necromancy, each of which has its own particular stars, and these stars sign in a supernatural manner.* The stars of geomancy sign or impress their marks on the terrestrial bodies of the whole world in many and various ways. They change the earth, produce earthquakes and landslips, make hills and valleys, bring forth many new growths, produce gamahei on nude figures and images having remarkable powers and potencies, which they receive from the seven planets, just as the shield or target receives the pellet or the dart from a slinger. But to know how these signs and images of the gamahei may be distinguished one from the other, and what they signify in magic, requires great experience and knowledge of Nature, nor can it be in any way perfectly dealt with here. But this must be noticed, that every stone or gamaheus possesses only the power and properties of one planet, and so can be endowed only by that one planet. And though, indeed, two or more planets may be conjoined in earthly bodies, as in the higher firmament, nevertheless, one is oppressed by the other. For as one house cannot have two masters, but the one thrusts out the other, so is it here also. One remains master; the other becomes a slave. Or as when one is keeping a house another comes upon him, thrusts him out by force, and makes himself master, arranging all things by his will and pleasure, while the other is reduced to slavery, so also one star expels the other, one planet the other, one ascendant the other, one influence another,

known to all that if a seed be cast into the earth and concealed therein, the latent nature of that seed, at the proper time, manifests it above the earth, and anyone may see clearly what manner of seed has lain in that place. It is the same with the heart (*cor*) and seed of man: out of that seed Nature produces a body so that anyone can see what kind of heart has been there. And, although there be a great difference between herbs or trees and men, yet art in man sufficiently demonstrates and proves those things. We men in this world explore all things which lie hidden in the mountains by means of traces and external signs. For we investigate the properties of all herbs and stones by their signed sign (*signum signatum*). Similarly, nothing can lie hidden in man which is not outwardly marked on him, for, as the physician has his own knowledge, so, also, the astronomer explores from the signed (*ex signato*). So now there are three things by which the nature of man and of everything that grows is revealed: Chiromancy, which concerns the extremities, as, for example, the hands, the feet, the veins, the lines, and the wrinkles; Physiognomy, which regards the constitution of the face and the parts belonging to the head; Proportion, which considers the condition of the whole body. These three should be combined: according to these three every created thing can be recognised: by the physician, that is to say, the remedy; by the astronomer, that is, the man; and by the metallurgist, that is, the metal. Such is the condition of the mother which manifests that which is latent in anything. He who is incapable of understanding these three things can be in no sense a natural philosopher, astronomer, or doctor, or know anything of the arcana and mysteries of Nature. The foundation is in this, that all things have seed, and in seed all things are contained, for Nature first fabricates the form, and afterwards she produces and manifests the essence of the thing. – *Explicatio Totius Astronomiæ.*

* The *Liber Philosophiæ*, in a treatise *De Arte Presaga*, regards the varieties of sortilege discussed in this book from a totally different standpoint. The four arts of Geomancy, Hydromancy, Pyromancy, and Necromancy are thus noticed: Spirits which are (normally) unable to communicate visibly with men, have by lying arts invaded their imagination, and have raised up therein Geomancy, Pyromancy, Hydromancy, and Necromancy, arts not invented from the light of Nature or of men, but instilled by spirits, who, by their frauds, after they had descried some one or other discoverer suitable for their purposes, then added fitting disciples to these, namely, cultivators and admirers of the said arts. The first discoverers were obsessed by the devil, and sought out through his power and instigation arts of this kind. There are some, indeed, who, hiding the matter, affirm that they have been revealed from God; but they are deceived, for God is not the author and teacher of inquiries into the future by means of such devices. He in no wise created us that we might devote ourselves to the investigation of what is to come, but ordered rather that, directing His attention to His commandments, we should seek out the knowledge of Himself and His manifest will. It is, therefore, a false pretence that these arts proceed from God when they emanate from spirits alone. It is, indeed, true that the spirits extracted them from God, not from the devil. But we on the earth derive them from spirits, not from God. Now, communication with such spirits is forbidden, though they themselves neglect the mandate. It is equally forbidden to the spirits to teach these arts, but here, also, they pay no attention to the command. And this is the reason why they are silent and tell lies when it is least becoming to do so. Thus, in order that man may act disobediently towards God, and plunge into superstitions, they have devised the four above-mentioned methods for inquiring into the future. Geomancy is the art of points, having sixteen signs and figures, which they have arranged according to their property. To these they added translations, creta (*sic*), form, points, and similar things, and have taught the erection of the whole figure, fixing certain rules by which each figure could be understood, each recognised in its own house, with a sufficient and necessary interpretation,

one impression another, and one element another. As water extinguishes fire, so one planet strikes out the property of the other and brings in its own. And so is it with their signs, which are manifold, and not only characters, as some think, but all those which are found in the entire map of the planets, that is, everything which is cognate with those planets or subject to them.

To make myself more easily understood, let me add an example. To the planet Sol there belong the crown, the sceptre, the throne, all the royal power and majesty, all the domination, all the riches, treasures, ornaments, and paraphernalia of this world.

To the planet Luna are subject all agriculture, navigation, travelling, and travellers, and everything concerned with matters of this kind.

To the planet Mars are subject munitions (as they call them), all breastplates, cuirasses, spears, and all arms, with everything relating to war.

To the planet Mercury are subjected all literary men, all mechanical instruments, and every requirement of art.

To the planet Jupiter are subject all judgments and laws, the whole Levitical order, all ministers of the church, the decorations of temples, ornaments, and whatever else belongs to this class.

To the planet Venus are subject all things relating to music, musical instruments, amatory exercises, loves, debaucheries, etc.

The method is as follows: They guide the hand and mark the points until a judgment is made concerning the proposed matter. But the spirits know exactly how many points are required to make a figure which will explain the matter. If their direction be right, the figure also is correct and valid. For example, suppose I ask who is standing at the door, and what kind of tunic does he wear? Take the seven colours, to each of which attribute a geomantic sign, and consult that figure. Then, whatever sign falls indicates the colour. Now, if I knew what colour it were, but you did not know, I might so direct your hand, forming certain points in one line that, by obliterating or wiping off, there would remain the colour red, and supposing the tunic itself was red, then you would reply rightly: It is a red tunic. But I knew that before, and directed your hand to those points. The spirits do likewise with all the figures; and, since they know all things, it is easy for them to describe the figures and to guide your hand. Every rhombus is described by guiding the hand. In this manner Geomancy is constituted. Moreover, many superstitions are added thereto by men to augment it, as, for example, that it should be performed when the sky is clear and serene, or in the quiet and silence of night. Also, that you should not operate for your own purposes. Again, that you should say such and such a prayer at the beginning, and commence under good auspices, etc. All these are human superstitions: for, not knowing the foundation on which the art depends, they increase it, but it is as much an art as a superstition. Geomantia, as it was called at first, is so constituted that the ascendant is twofold—natural and of spirits. For the natural has its art, namely, Astronomy. The spirit has its Pyromancy. Accordingly, if a nativity be constituted out of the stars it is astronomically erected. If it be made according to spirits it is Pyromancy. But Pyromancy consists in the spirit being connected with the ascendant, and it leads the infant for example, into whoredom, thefts, lies. And as the art comes forward and succeeds, the spirits suggest to astronomers that if a conjunction of this or that star takes place, say, this or that event will take place, not because Nature herself will accomplish such things, but I myself will see to it, and, being everywhere, will bring about such and such effects; but as no one can trace my actions, they will be imputed to the stars or the elements. Hence it comes to pass that people pay more attention to the stars than to God. This is an astute feat of the devil. It is the spirits who cause the astronomical and other predictions to be fulfilled that the credit of the art may be sustained, so that men may be involved in errors and loss, while, intent on vain fantasies, they forget the true God. Their devices are favoured by their dupes, for in the case of twenty prophecies, if only one be fulfilled, they will never cease from inquiring until the other nineteen lies have been fulfilled also. Meanwhile, they are so deluded by the spirits themselves that they cannot arrive at the true *fundamentum*. For it is the property of spirits to lie. We have finished, then, with the foundation so far as they are concerned. Now one thing is wanting, now another; now the fault lies with the house, now with the exaltation, etc. In this discipline men have laboured for many thousands of years, nor have yet discovered the truth, which, indeed, is impossible to find, as the whole foundation is on falsehood. We now see for what reason astronomy is called Pyromancy when the operation proceeds pyromantically. The same spirits make their way into the third element, that is, water. For Geomancy has been named from the earth, as if it arose from the nature of the earth. Nor without reason, for the earth also has its own heaven or stars; but the spirits who are pyromantically recognised have devised them. Similarly, in the element of water there is a star wherein the pyromantic spirits dwell who have instituted Pyromancy, chiefly in the times of the Greeks, who, being easily led into all manner of delusions, promptly subjected themselves to the spirits. Pyromancy is an art consisting of signs and figures harmonising with the universal figure of the heaven. The process is as follows: Take a basin full of water, which set down, and notice the direction of the wavy movements as the water quiets down. Notice, also, the tremor, the rest,

To the planet Saturn are subjected all those who work in and under the earth, as metallurgists, miners, sextons, well-diggers, with all the tools used by them.

Pyromancy puts forth its signs by the stars of fire; in common fire by sparks, flames, crackling, and so forth; in mines by coruscations; in the firmament by stars, comets, thunder and lightning, nostoch, and the like; among spectres by salamanders, ethnic, and other similar spirits which appear in the form of fire.

Hydromancy gives its signs by the stars of water, by waves, inundations, droughts, discolorations, lorindi, new floods, washing away of territory. In magic and necromancy by nymphs, visions, and supernatural monsters in the waters and the sea.

Chaomancy exhibits its signs by the stars of the air and the wind, by discoloration, the loss and destruction of all tender and subtle things, to which the wind is opposed, by shaking off and stripping flowers, leaves, fronds, stalks. If the stars of chaomancy are excited the Necromicæ fall down from the upper air, and frequently voices and answers are heard. Trees are plucked up from the earth by their roots, and houses are thrown down. Lemurs, Penates, Undines, and Sylvans are seen. So also Tereniobin, Tronosia, and Manna fall upon the trees.

Necromancy puts forth its signs by the stars of death, which we also call Evestra, marking the body of the sick and those about to die with red, livid, and purple spots, which are certain signs of death on the third day from their appearance. They also sign the hands and fingers of men with clay-coloured spots, which are sure signs of something, good or bad, about

and the bubbles. These four give four figures, and the figures give twelve. Near the figures, rules and such things are found. Now, the spirit moves the bubbles, originates the shaking, the rest, the calm, according to the necessity of the sign, so that there may result a figure which indicates what is desired. Those, therefore, who have well-disposed spirits, to whom few things are forbidden, make good sorcerers in the art. On the other hand, a bad sorcerer has a mute and mendacious spirit. Among spirits one may be more mute and lying than another. When, therefore, one sorcerer is said to be more certain than another, it does not follow that he has greater skill, for he may possess a more reliable spirit. Now, the spirits delight by means of vexing and deluding men to cause them to hate one another, and this, indeed, is their first object. Were the foundation of this art more closely investigated by men, it would be seen that it was a hoax of the spirits. Yet, even if men arrived at perfection in this art, what solid advantage would it confer on them but a futile prediction and a pretext for wasting time. Suppose I desire to marry, and consult an omen as to the result, even if I get an answer I shall be uncertain of its truth; it is just as likely to speak falsely as truly. But i the prediction be fulfilled, it may be by the devil's arrangement. In any case, how will it help me? If I escape this evil, it will take shape in another way. Consequently, no faith can be placed in these arts. In addition to the methods which have been already mentioned there is Necromancy, which is the art of the air. And although others define differently what is meant by *Necro*, this is genuine—that it is the art of shades, for shades only are in the air, and these things are known by the shades. . . . Some people, at night, see figures in the air, as in heaven sometimes figures appear which have a certain signification. This is Necromancy. Men appear walking in the air, the clash of arms is heard, etc. Wondrous shades are likewise occasionally visible in water. The cause of all these things is, that the spirits display what they wish according to their own pleasure. A part of their deception is to make men fancy that the spirits must be propitiated by prayers, or compelled by force and conjuration to produce prodigies. Now, all these things are sheer superstition. It is also thought that men can compel spirits, through God, to do this or that; but it is highly displeasing to God that we should be occupied with such triflings, and the spirits are rejoicing meanwhile that, in opposition to God, we have become their accomplices. The prayers, conjurations, fasts, and other ceremonies are nothing but a cloak to superstition. The pronunciation of various words is committed to memory, but these are not the real names of the spirits, and they are altogether unimportant. For although each spirit has his own peculiar name, yet they salute one another by different names at different times, and so make game of men. Now, concerning the nature of shades, whatever is seen in a figure or image is to be considered such. He who is favoured by spirits sees many things, but otherwise, little or nothing. Did God permit it, these beings would be always in our midst, enticing us to desert God, and devote our mind to them. But if we carefully regard what they have performed during a given year we shall see that it has been mere trifling, devoid of use and profit, destructive to body and soul, health and property, praise and honour, in a word, disgraceful allurements, frauds, and devices, sprung from the root of lies itself.

immediately to happen. When the stars of necromancy are moved, then the dead give forth miracles and signs, the deceased bleed, dead things are seen, voices are heard from graves, tumults and tremblings arise in the charnel-house, and the dead appear in the form and dress of the living, are seen in visions, mirrors, beryls, stones, and waters under different appearances. Evestrum and Tarames give signs by knocking, striking, pounding, falling, throwing, and so on, where only a disturbance or sound is heard, but nothing seen. All these are sure signs of death, presaging it for him in whose dress the spectres appear, or for some one in the place where they are heard.

Concerning these signs much more could be set down than has so far been said. But since these bring with them bad, hurtful, and dangerous phantasies, imaginations, and superstitions, which may be the cause not only of misfortune, but even of death, we pass them over in silence. We are forbidden to reveal them, since they belong only to the ancient school and to the Divine power. So now we bring this our book to an end.*

HERE END THE NINE BOOKS CONCERNING THE NATURE OF THINGS.

* In certain editions the following dedication is prefixed to the Nine Books containing the *Nature of Things.*—Theophrastus Paracelsus gives greeting to the honourable and prudent gentleman. John Winckelstein of Friburg, his initimate friend and dearest brother:—It is right, O intimate friend and dearest brother, that I should satisfy your friendly and assiduous prayers and petitions which you have addressed to me in your several letters, and since, in your latest letters of all, you have earnestly and courteously requested that I should at length come to you, if it were consistent with my convenience, it is not meet for me to conceal from you, that this course is, by reason of various hindrances, impossible. But with regard to the second request you have made to me, that I should furnish you with an excellent and clear instruction concerning certain matters, I neither can nor will refuse you, but am compelled to gratify you therein; for I am well acquainted with your disposition; moreover, I know that you hear and behold with delight anything that is fresh or marvellous in this art. I know, also, that you have devoted a great portion of your life to the arts, which have formed the chief element of your curriculum. Since, therefore, you have displayed, not only benevolence, but fraternal fidelity towards me, I am rightly powerless to forget either your fidelity or your benefits, but am indeed of necessity grateful, and, in case I should not see you in person again, I must leave a brotherly farewell to you and yours, as a memorial of myself. For herein I shall not only answer and clearly explain those points concerning which you have consulted me and asked me in brotherly fashion, but will dedicate to you a special treatise on those points, which treatise I shall name *Concerning the Nature of Things*, and shall divide it into nine books. This work satisfies all your requests, and, indeed, more than you have requested of me, although you will greatly wonder at its matter, and will doubt whether things are just as I have described them. But do not so act, nor think that they are mere theories and speculations, whereas they are of practice and proceed from experience. And, in spite of the fact that I have not personally verified them all, notwithstanding, I both possess, have proved, and know these things by experience from and by means of other persons, as also from the light of Nature. But if in certain places you do not rightly understand what I say, and in one or more processes require of me a further explication, write to me secretly, and I will put the matter more clearly before you, and give you a sufficient instruction and understanding, although I do not believe that there will be any need for this, but that you will easily comprehend without it, since I know how richly you have been endowed by God with the arts and with good sense. Moreover, you know myself and my feelings, wherefore you will easily and quickly take my meaning. But, above all, I hope and am confident that you will look upon the present work, and will fittingly regard it as a treasure, will by no means publish it, but exclusively keep it in great secrecy for you and for yours, exactly as a vast hidden treasure, noble gem, and precious thing, which is not to be cast before swine, that is, before sophists, contemners of natural blessings, arts, and secrets, which persons are not worthy to read, much less to have, know, and understand them. And, although this book be very small, containing few and scanty words, yet it is full of many great mysteries, for herein I shall not write from speculation and theory, but practically from the light of Nature and experience itself, nor will I burden you and render it tedious by much speech. Wherefore, dearest friend and most intimate brother, since I have addressed this book out of love to you alone, and to no one else, I request you to keep the book as a precious and secret thing, and not to part with it until your dying day. After death, in similar fashion, command your children and heirs to preserve it also in secrecy. Furthermore, it is my special request that it should remain only in your family, and at no time become so public as to fall into the hands of sophists and mockers, who despise all things which do not agree with them, and cover them with calumny; who also are pleased only with that which is their own, as is the case with all fools; who are pleased only with their own trumpets, but not with that of another; and do hate all wisdom, regarding that as of small account and even as folly, which is greater than theirs, that is to say, what is in their own head, because it does them no good, nor do they know the use of it. One workman cannot use the tools of another, and so in the same way a fool can use no better instrument than his own key, nor is any sound sweeter to his ear than the tinkling of his own bells. Wherefore, dearest friend, be faithfully admonished, as I have entreated you; do that which I expect of you, so shall you do well and rightly. Farewell, under the care of God.—Given at *Villacus*, in the year 1537.

THE PARACELSIC METHOD OF EXTRACTING MERCURY FROM ALL THE METALS.

TO extract Mercury from metallic bodies is nothing else but to resolve them, or to reduce them into their first matter: that is, running Mercury, such, in fact, as it was in the centre of the earth before the generation of the metals, namely, a damp and viscous vapour, containing invisibly within itself natural Mercury and sulphur, the principles of all metals. Such Mercury is of unspeakable power and possesses divine secrets.

The reduction spoken of is made by mercurial water, which was not known to John of Rupescissa, or to others, however they may boast. It must, therefore, be carefully studied and treated with unwearied assiduity. Let the aforesaid mercurial water be thus prepared :—

Take three pounds of Mercury sublimated seven times by Vitriol, Salt-Nitre, and Alum; one pound and a half of Sal ammoniac, clear and white, three times sublimated from salt. Grind these well together, alcoholise them, and sublimate in a sublimatory by means of sand for nine hours. When the mass has cooled, remove the sublimate with a feather, and sublimate with the rest as before. Repeat this operation four times, until it will no longer sublimate, and in the bottom there remains a black mass of fluid like wax. Having cooled this, take it out; grind it again, and imbibe it in a glass dish several times with the prepared water of Sal ammoniac. When it is spontaneously coagulated, imbibe it again and dry it, repeating this process nine or ten times, until it will scarcely coagulate any further. Grind it very small on marble in a damp place, and dissolve it into a beautiful oil, which you must rectify from all its dregs and residuum by distillation in ashes. Carefully preserve this water, for it is by far the chief of all waters. Take eight ounces of it, and put in it plates of the purest gold or silver carefully cleansed, an ounce and a half in weight. Place this in a closed vessel for digestion over hot ashes during a period of eight hours. Then you will see your body at the bottom of the vessel transmuted into a subtle vapour or Mercury. Having made a solution of the whole mercurial water, separate it, by sublimation in an alembic over a slow fire, from its first matter, and keep it carefully in a glass vessel. You will thus have the true Mercury of the body, the use whereof in desperate

cases, provided only it be carefully employed, is marvellous and celestial*; and on that account, therefore, not to be revealed to unworthy persons.

* For example, the red Mercury of Gold constitutes a good medicament for the cure of wounds and of the plague, that is, if it be reduced to a precipitate to prevent vomiting. This is accomplished by the upward separation of its laxative part. For in every preparation of gold the chief point is to remove superfluity from it. In the plague there is no necessity for purging. Gold, however, is a laxative, a tonic, and an astringent. Take it away; preserve the rest. The medicaments for the plague are divided into those used for the *accidentia* and those adapted for its cure. Understand concerning the cure that the spirits of gold and of gems are the best medicines whereby all plagues, wheresoever located in the body, are most successfully healed. The principal is gold; the second are gems, for gems are tonics and preventives. It should at the same time be remembered that all sores are, as far as possible, to be cured from within. For this reason there is no more excellent medicine—speaking of vulnerary potions - than is internal Mumia. No wound is properly healed from without. Internal Mumia is the perfect curative. Otherwise, there is no more sublime incarnative than gold itself.—*Fragmentum de Peste.*

THE SULPHUR OF THE METALS.

THE Sulphur of the metals is an oiliness extracted from the metals themselves, endowed with very many virtues for the health of man.* Another sulphur is drawn from metals before they have undergone the fire, as from the golden and silver marchasites and others, which take rank and excellence according to the nobility of the mineral. So also is it drawn from the mineral of marchasite and cobalt, according to the nature and property of each.

The more common mode of extraction is to take Acetum carefully distilled, which has stood for twenty-four hours on a *Caput Mortuum* made out of distilled Vitriol, Salt, Nitre, and Alum, which also has itself been distilled by means of an alembic. This, I say, you must pour on the pulverised metallic body in a glass vessel so that it shall stand above it by the height of seven fingers. Then place it to digest in horse-dung for nine days. The coloured Acetum distil in the ashes until it comes to a superfluous oil, which you will rectify in a bath, or in the sun. You will then have the very truest Sulphur of the metallic body, which you will rightly use at your discretion.

The extraction can also be made by means of a sharp and thoroughly separated lixivium. But other sulphurs are less suitable for the internal bodily use on account of the alkali of the ashes, out of which we make a clavellated corrosive substance, and also on account of the lime of which such lixivia are composed. The Sulphur thus extracted can be washed with sweet water and precipitated. The subsequent digestion requires a double space of time. The lixivium also ought to be rectified from all earthy deposit by means of sublimation, so that such sulphurs may not be incorporated with it and become corrosive so as to cause injury to sick persons. It is to prevent this that the separation spoken of should be made. So far concerning the crude materials.

But now, these having been fused and depurated, you may draw forth their sulphur. There is no more certain, noble, or better way than by the water of salt or by its oil, prepared in the way I have clearly described in my

* The Sulphur of Metals, and, indeed, that Sulphur which can also be extracted from minerals, is said to be of special utility in dropsy, for it is of a drying nature, and is, as it were, a sun, or solar heat, which disperses this rain of the body, and causes it to pass off in vapour.—*De Hydropisi.*

treatise on Alchemy. Such a water extracts from the very foundations and roots their natural liquid out of all metallic bodies, or a sulphur and a crocus most excellent for all medicinal as well as alchemical purposes. It resolves and breaks every metal changing it from its metallic nature into some other, according to the different intention and industry of the operator.

THE CROCUS OF THE METALS, OR THE TINCTURE.

THE Crocus of the Metals is of four kinds : of the Sun, of Venus, of Mars, and of Chalybs. The best is that of Chalybs. It is extracted by reverberation or by calcination, reducing the aforesaid bodies to dust. In like manner, filed iron is consumed by rust. The consumption of the rust is made by the imbibition of those things which produce rust, and by a decoction extracting the colour of rust.

Take old Urine poured away from its deposit, several cups of it, in which dissolve three handfuls of ground Salt. When you have strained it, boil it and skim it carefully. In this again dissolve a handful of bruised Vitriol, with two or three ounces of bruised Sal Ammoniac, and then carefully skim again. With this liquid imbibe some filings, and boil until it can be pulverised. The dust thus produced reverberate over a powerful fire, continually stirring it with an iron rod, until it changes from its own colour to another, and at last into the hues of most brilliant violet. From this you can easily, with spirits of wine or distilled acetum, draw off the Tincture, and when it is extracted by separation of the elements you will collect what remains at the bottom of the glass, by means whereof you will be able to produce wondrous effects, both within and without the body.

For making the crocus of Venus, take one or two pounds of copper-rust carefully alcoholised, pour on it plenty of distilled Acetum, and stir it well three times every day. Gently pour off the coloured Acetum, and thoroughly sublimate it in ashes until it is dry. Let this powder be afterwards washed nine times with warm water from all acridity, and then dried. You will then have the prepared Crocus of Venus, or Flower of Brass, from which, if you wish, you can easily extract an oil according to the instructions given in the great work on Surgery, where also its use is explained.

The Crocus of the Sun should be extracted by the water of salt, whereby the metallic nature, or malleability, is destroyed. When the residuum has been washed with warm water, the Crocus can be extracted with spirits of wine ; and, this being again separated, the Crocus will remain at the bottom. This is changed into the liquid, or truest quintessence of the Sun, by means of elevation, and sublimating with five different grades of fire. With this you

can produce marvellous effects. But there is need not of a merely imaginary, but of an active and skilled, operator.*

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* The flow of blood from wounds can be stopped by means of the most skilfully reverberated Crocus of Mars.—*Chirurgia Magna*, Tract II., c. 10. Moreover, the Crocus and Flower of Mercury may be successfully made use of for the cure of ulcers.—*Chirurgia Magna*, Pars. III., Lib. V. The Crocus of Iron, if it be reduced by the reverberatory into alcool, is supposed to cure the same ulcers that are successfully treated by the Oil of Iron, provided they have ceased to flow, and have reached their proper maturity.—*De Tumoribus et Pustulis Morbi Gallici*, Lib. X. By artificers and mechanics certain arcana are discovered in the things which they daily use. Thus workers in brass have stopped the flow of blood with burnt brass, and have dried flowing wounds. Workers in iron have used their burnt iron, which is called Crocus of Iron, for wounds. Potters also have made some discoveries with what they call silver or golden litharge. Many are the inventions of the vulgar which have been called experiments; many more, which need not be described here, such as minium, ceruse, and the like, have resulted from the various attempts of the alchemists upon various substances.—*Chirurgia Vulnrum*, c. 9. The Crocus or Flower of Copper, which is usefully applied to the cure of corrosive ulcers, is usually prepared in two ways, one of which is that the greenness is abstracted by means of distilled Botin, and the said Botin is then again extracted. Notwithstanding, the strength of Venus is feeble unless vitriol be added to it. But I regard that as vitriol which is extracted from the body of Venus.—*De Tumor. et Ulcer. Morbi Gallici*, Lib. X.

THE PHILOSOPHY OF THEOPHRASTUS CONCERNING THE GENERATIONS OF THE ELEMENTS.*

BOOK THE FIRST.

Concerning the Element of Air.

TEXT I.

IN the beginning, Iliaster, which is nothing, was divided, thus giving and arranging the four elements.† It was even as the seed from which springs the stem. What the seed gives forth it does not receive in the same form into itself again. But this Iliaster again attracts to itself the four elements. Thus, that is dissolved and becomes what it was before the four elements were produced, provided only one year of the world has elapsed. The four elements are the growth produced from the Iliaster. And the seed does not give those very things from which the infant is produced after this year of the world ; but the four elements are both mothers and daughters. Of this family nothing is found surviving after death ; but its end is the same as its origin ; and so whatever is in it perishes at the same time. Although another world follows after, which is the daughter of this one in name, still, it is not so in form, in essence, or the like. For this will not pass away, but will remain like the

* The philosophy of Paracelsus concerning the generation of the four elements and concerning the three prime principles, Sulphur, Mercury, and Salt, appears to have been regarded by himself and by his editors as an essential part of his doctrine and practice of alchemy. To include it in the first section of this translation is by no means outside the issues of Hermetic Chemistry. Paracelsus was not the first adept who regarded the process in the accomplishment of the *Magnum Opus* as offering a rigorous analogy with the creation of the greater world. All alchemy insists on it. He who succeeded in accomplishing the Grand Magisterium, the confection of the Philosophers' Stone, became initiated thereby into the secret of the *Mysterium Magnum;* and, on the other hand, an exact comprehension of the true principles which obtained in the universal genesis, was enough to possess anyone with a full and practical illumination concerning the arcanum of philosophy. The cosmological philosophy of Paracelsus is the necessary complement of his alchemy, and whether or not their combined study is likely to throw light upon either, an opportunity must be offered to the student for the comparison of the two. The treatises which have been selected for the purpose are translated from the second volume of the Geneva folio, and the copious notes which have been added are derived from analagous writings which Paracelsus left unfinished, or which, for some other reason, have come down to us in an imperfect state.

† When God determined to form the world and deliberated with His Divine Prudence concerning its nature and the manner of its creation, He divided it into four parts or bodies, which he designed to be the mother of all things, but subject to him whom God intended to create after His own image, even the man Adam. When, therefore, the matter had been deliberated on and decreed by God, the four said bodies were created—that is, heaven, earth, water, air. For, as the Scripture saith, heaven was created first, then earth, and subsequently the two others. Hence you must know that these four bodies, mothers, or matrices, exist that they may produce fruit, and furnish the necessities for man's nourishment. Thus, for example, the earth brings forth its peculiar products, but it is man and not the earth who makes use of them. Similarly, heaven is a body, free by itself, whence fruits proceed simply for the use of man. —*Liber Meteorum*, Pref.

soul, which is indeed made and created but not mortal. Such is also the lot of this world.

TEXT II.

Now, it is quite certain that the Eternal Father, who is not only the father of His own Son, but also of all things, mortal and immortal, permanent and transitory, blessed and damned together, created *Domor*, that is, heaven and earth, the firmament and the water, to which He also gave His own Divine will. We will not further discuss this subject here, but the same things can be read in the Paramira.* He formed the natural from the non-natural. From that which had never perceived any nature, He produced another nature, and following that nature He willed that yet another nature should be produced, whilst a year revolves, wherein His majesty Himself carries on the Divine rule, which man now moderates and possesses. Yet these primal natures differ, so that from the earth springs the pear-tree, from the sand the thistle, from the water cachimiæ, from the sky chaos, and from the fire snow. But seeing how wonderful these things are, and how unlike they seem to the first source from which they sprang, we ought to make it a matter of knowledge and of philosophy, that the element of water is not water only, but a mineral as well; that the element of earth is not earth only, but a grape as well, and so with the rest. For that philosophy is vain which gives it out that the earth is an element, indeed, but not a nut, or that fire is an element, but not snow. So, too, those who say that the four elements exist in all and everything, advance mere nonsense.

TEXT III.

The earth is an element, and whatever is produced from it. So is the water and all produced therefrom. So then that is an element which produces. And an element is a mother, and there are four of them, air, fire, water, earth. From these four matrices everything in the whole world is produced. And the speech is inconsiderate of those who assert that an element is simply endowed with a complexion, warm, dry, cold, moist, or a compound of these. All these things are in all these four elements. You can understand it thus: the earth is cold and dry, cold and moist, warm and dry, warm and moist. This is how matters stand. Whatever thing which is warm and dry grows out of the earth, grows out of that which in the earth is warm and dry. Whatever is or is produced cold and moist, is produced from that in the earth which is of a similar nature. So also from fire four complexions proceed. Snow, for example, from that in the fire which is cold and dry; and lightning from that in the fire which is warm and dry. It is the same with the other two elements. I would have you then, at this point, before all to be advised not to determine the elements according to their com-

* But more completely and copiously in the treatises and fragments of treatises from which the ensuing notes have been rendered.

plexions, but according to their forms, that is, what are the four matrices which they have within them. The earth is material, clayey, conglutinous. Such it is whether it be warm, dry, cold, or moist. The water is humid, sensible, tangible, but not corporeally, not materially. And such is the element, whether it be cold or warm. The fire is a firmament, and is the element of fire, though it be in one place warm, in another cold. The air is a heaven which comprises all things, and is moist, warm, cold, or dry, as shall hereafter be set forth.

TEXT IV.

Now, in order to advance towards the established principle with regard to the elements, understand this. The Iliaster was originally distributed into four parts—the air, which is a heaven embracing all things; fire, which is a firmament producing day and night, cold and heat; earth, which affords fruits of all kinds and a solid foundation for our feet; and water from whence are given forth all minerals and half the means of nutriment for living things.

These nutriments are twofold, one found in air and fire, the other in earth and water. The two former nourish us as if spiritually and invisibly; the two latter materially and corporeally. These four elements are divided into two classes. One is constituted of air and fire; the other of earth and water. The air sustains fire, the earth water. Air and fire hold water and earth; while these two hold air and fire. So then all things were created in due order, that the one might support, seek for, and nourish the other. Thus the Iliaster was divided into one *domor*, of which there are two globules, an outer and an inner, each enclosed with two elements.

Beyond is nothing, so far as we know. Within is what we see, and touch, and what the light of nature suggests to us. He who created these things is not among us, but dwells without us. But He who was begotten of Him is amongst us. Still we must not philosophise further concerning the four elements than Nature teaches and points the way for us.

TEXT V.

In the beginning the body of the four elements was founded with that form and amplitude in which the heaven lies extended; and it was made corruptible or perishable so far as the air surrounds it.* There was the throne

* But now we must understand what is the nature of the body of heaven. Earth, water, air have each their peculiar bodies, but, indeed, all the four bodies of the four elements are made of nothing, that is, they are made only by the Word of God. This nothing, whence is produced something, turns into substance and body, which body of all the four elements is distinguished into three species, so that the creative *fiat* resulted in a triple body. Thus the earth and the other elements are all threefold. At the same time, there is such a distinction between the elements that the four things are not one body. The air is one body, the earth is another, the water a third. So also would be heaven if these four had a like body. But the earth has three bodies, and so also have water, heaven, and air, and yet a piece of wood is one body, a metal another, a stone another, a sponge another. So also the four elements of bodies are distinct and separate, as though someone were to take lead and make of it minium, ceruse, glass, and spirit of Saturn. So then, these three species are distributed into four elements, a peculiar body being assigned to each. To pay more exact attention to these numbers, God Himself chose three, and constituted all things out of three, and separated all three. For the origin of this number is immediately from God, the principle

of God and the centre of His Kingdom, from which centre the world was created, but so that it should be something mortal and perishable created by God. To rightly understand this you must know that from that centre the world arose and was made material. On this seat Christ hung from the cross; on this seat sat the prophets; it is the footstool of God. Here, therefore, material and corporeal things are made God, and His work, the centre of His Kingdom, and His throne.

It should be known, then, at the outset, and before the philosophy itself is unfolded, that God has made the centre of His heaven, and even Himself, perishable. For as corporeally He is called the Son, so the world is His house. But although it be thus made and created, still we must believe that it will not perish as it was produced. Of man the heart will endure: of the world the flower will be permanent.

TEXT VI.

As to the manner in which God created the world, take the following account. He originally reduced it to one body, while the elements were developing. This body He made up of three ingredients, Mercury, Sulphur, and Salt, so that these three should constitute one body. Of these three are composed all the things which are, or are produced, in the four elements. These three have in themselves the force and the power of all perishable things. In them lie hidden the mineral, day, night, heat, cold, the stone, the fruit, and everything else, even while not yet formed. It is even as with wood which is thrown away and is only wood, yet in it are hidden all forms of animals, of plants, of instruments, which any one who can carve what else would be useless, invents and produces. So the body of Iliaster was a mere trunk, but in it lay hidden all herbs, waters, gems, minerals, stones, and chaos itself, which things the supreme Creator alone carved and fashioned most

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in the Deity being three. Now, the word also was threefold, and the word is the beginning of heaven and earth and of all creatures. All things are synthesized in three, and there is nothing on earth which consists not of and in three, and is reduced again into that three. On the one hand, then, it is evident that each creature can be distributed into three, each in its place; but, on the other hand, what they dogmatize concerning the four things or elements, to the effect that each thing consists of four elements—that is false; each thing, however, contains in itself one complexion and not more, nor can it have any other element than that which it receives from its mother. For instance, every herb has only one element—that is, of the earth; every stone has one element—that is, of the water. But in addition to this it receives a complexion, frigid and humid, frigid and dry, warm and humid, warm and dry. Yet that is not a whole element, but the element is the matrix, as water or earth. For instance, man is taken from the slime of the earth; but the element is not slime, it is quintessence. Yet it again becomes an element, that is, it returns to the element with the distinction which subsists between an element and flesh. Hence the elements only recur into three, and these three are the prime matter of the elements. However, the fashion of the prime matter of water, earth, air, and heaven is diverse, for the number three constitutes only three species in reality, which three make a perfect body, and these same are found by art in all bodies of Nature. These three are the first matter and have only one name. The first matter is as God; and as in the Deity there are three persons, so here each species is separate by itself as to its office, but the three offices are comprehended under the one name of the first matter. This first matter has been distributed by God among four parts or elements. Whatsoever resides in the first matter of the earth is being separated or has been separated into earth. The case is the same with the other elements. So, everything has been ordained into its predestinated form, earth having been ordained to be earth, with its office, and so of the rest. So all things consist of one body, and yet there are four bodies, and the four elements are all distributed into four bodies, and are formed from one matter which is in itself triple, having been originally formed out of the word. The three first things are three parts, namely, fire, salt, and balsam. All bodies consist of these three—all elements and all fruits thereof. Earth is threefold in its body—fire, salt and balsam—while that which grows from it is similarly distributed into three species. The body of a tree is fire, salt, and balsam, and the things which are generated from balsam are

subtly, having removed and cast away all that was extraneous. First of all He produced and separated the air. This being formed, from the remainder issued forth the other three elements, fire, water, earth. From these He afterwards took away the fire, while the other two remained, and so on in due succession.

TEXT VII.

The four fields, therefore, having been in this way set apart and separated, there remained also four storehouses for keeping the four elements, namely, the hot, the cold, the moist, the dry. Each of these was far from being unimportant. First the air was arranged; afterwards the fire; then the earth; and, lastly, the water, in the following way: From the air proceeded chaos, the throne, the chain, the foundation. From the fire, night and day, the sun and the moon. From the earth, trees and herbs, grasses and fruits. From the water, minerals and stones. Of these the succession was so arranged that from the superfluity was continually produced something else. For instance, from the Iliaster of the earth beech wood was extracted and the wood of apples removed. Each was disposed in its own place; nothing being corrupted or intermixed. In water gold was separated from the rest of the metals, and afterwards the others also were removed in turn. In the fire, the cold withdrew from the heat, the light from the darkness. In the air, chaos was set in order for preserving all things, and for separating earth from heaven. These four Iliastri having been created and arranged according to elements, that is, according to the matrices of their fruits, the air was prepared before all else; then afterwards the fire. These two were linked together in union. Afterwards the earth, too, and the water, being separated from the two former, were joined in one. These are now conjoined Iliastri. The air is by itself, and the fire. In like manner, also, the earth and the water.

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fire, salt, and balsam. It is the same with those fruits which have water for their matrix. It is the same with heaven, of which the fruits are the sun, etc. It is in like manner with snow and rain. The art, therefore, of Nature does not, then, teach us how to extract anything out of fruits except fire, salt, and balsam, which also are so separated from one another by the force of fire that the fire, salt, and balsam become separate. Now, fire is also called sulphur; salt, halm; and liquor, mercury. It is necessary, however, that we should have a clear idea what an element is. Now, man has a large body, containing many substances. But that which is the man himself, namely, soul and spirit, is a small thing. The reason why the body is called man is because the man remains hidden in the body. So also the eye is a considerable part in man, but the force which sees is very small in respect of the eye. In like manner, the earth is called an element, whereas it is a rude body, and its true element is hidden therein, invisibly, like the spirit in man. It is the same with the other elements, which are, indeed, corporal, but are yet spirits according to their nature and substance. So often, then, as you hear that this or that proceeds from an element, understand that it proceeds from the element itself, and not from its body. In man the tongue speaks and does not speak, for the spirit speaks in it, whose intimate permixture and union with the body causes it to be thought that the body does everything. . . . . The odour of the box tree is the spirit of the box tree; what there is else is its body. The soul of musk is in its odour. In corals the colour is the spirit. Thus, all fruits, like their element, have spirit as well as body, and the true fruit is not seen by the eyes. Yet there is a certain difference between the natural and the supernatural spirit, for the first is corporeal and material, subsisting in a corporeal body, but the second is altogether destitute of a body. The body of the natural spirit is clothed by Nature with another body of its own element. But concerning heaven it is to be noted that God has given it the name of firmament. The firmament is the heaven and its whole substance. The three other elements are included in the firmament, as the egg in its shell. By the demonstration of the name which He has given to it God teaches that He has endowed the firmament with power that it may be as a sure shell, wherein all the creatures of Nature are firmly contained. And, just as the yolk remains immovable in its place, whether the egg be put up or down, so is it with heaven. Wherever we dwell, we live at a high level or a low, and can call ourselves dwellers on high or dwellers below. For a circle has neither summit nor base.—*Liber Meteorum*, c. 2.

Thus it was that God made the material centre of His throne, and afterwards sundered it in three primal elements, from which constantly emerges everything that is born. Without these three, nothing in the four Iliastri can grow. But while they grow they are elements, and so, moreover, they lose their name of Iliastri and are called elements.

TEXT VIII.

These four elements were sundered into their own places and seats, so that none of them should be mixed. All these were removed, just as a sculptor when making a statue throws away what does not suit the intended image. So there are four elements, but only three primary ones; three in the air, three in the fire, three in the earth, and three in the water. Everywhere there is only a single triad of the primaries, that is, one Mercury in all, one Sulphur in all, one Salt in all. Yet they differ in their properties. Whatever is growing, herb, leaf, grass, or the like, was relegated to the earth. Whatever is mineral withdrew into the water. Whatever is warm, cold, day, night, betook itself to the fire. Whatever is air spread itself out over chaos. And all these three are one, each in itself. It is just as when a stone is divided into four parts, and out of one is made a statue, out of another a pitcher, out of a third some other kind of a vessel, and out of the fourth a milestone; yet all are stones, nay, all one stone, though divided into four portions.

Of these Iliastri there are four, and no more; these being sufficient. So God disposed the world in a quaternary. He was satisfied with this number, though He could have made eight parts. One portion of nutriment He conferred on the air, a second on the fire, a third on the earth, a fourth on the water. Nowhere was there any deficiency.

And now it is further necessary that in the course of our philosophising we should go on to treat of these four under the name of elements, to tell of their possibilities and performances, and to state in what they excel. We will begin with the air, and conclude our philosophy with the water, adding such explanations as the nature of insensible things requires.

TEXT IX.

The element of the air was appointed for no other purpose than to be the abode of the other three, each to be conserved, as it were, within its close in the following way.* The air encloses in itself every mortal thing,

* The elements and all that exists are built upon the element of air, even as a house upon its foundations. We should philosophise, however, concerning that which sustains the air. This power is situated in the exterior part of the air in which the Triune God dwells, so ruling and sustaining the air that it does not yield, nor is broken. For it is impossible that perishable things should fall into the sphere of the imperishable. Moreover, it cannot fall, because all things tend upwards, nothing downwards, nor is there any bottom or profundity. For the air is so compacted and confirmed in its circle that it can no more be broken or dissolved than the external kingdom can perish till its time arrives, when it will collapse inward towards the centre, the air and stars rushing towards the globe of earth, and then the globe shall by them be so utterly consumed that not a single ash shall remain. For the manner of this destruction shall be such that nothing shall collapse outwardly from the circle, but all inwardly to the centre. And this is the highest secret of philosophy—that the circle rushes to the centre because there is no profundity outside.—*Alius Liber Primus Meteorum, De Elemento Aeris.*

and shuts it off from what is immortal, as a wall divides a city from the fields. It strengthens the world and keeps it together, as a dam does a marsh. And just as there is nothing in an egg to one who looks at it from without, or outside the egg, which agrees with what is inside, so the sky is a shell dividing heaven and earth, just as the egg-shell separates the egg from what is outside it. The air, again, is like a skin in which is stored up a body, the whole world, to wit, and wherein the earth is contained and preserved. The air, then, is this sky, a skin, or egg-shell, or wall, or mound, beyond which nothing can burst through, and within which nothing can break in. Moreover the air is breath, from which all draw their life. This is truly air itself, and puts forth the air which nourishes the four elements, and at the same time sustains the life of man. Without it none could live. Without this no element could advance, no wind could blow, no rain or snow could fall, no sun could shine, no summer could flourish, no water could flow, no earth could sustain. All this force proceeds from the air, and is attracted by the four elements. For as the lungs every moment inhale air, so does the earth, while the water and the fire each do the very same thing. That is a palpable error which lays it down that winds are caused by the air. They burst in upon us like poison, not as a means of life. The first element brings air, but fire gives the winds.

TEXT X.

From this same element, too, flows forth a power by which fire is joined to the air, so that it may not fall down. Thus it is like a chain which, without materiality or visibility, holds together and binds. This it does by means of its chaos, which it inserts between the pellicle and the earth. There is also a middle space extending from heaven to earth, in which are balanced the fire, the earth, and the water. And as the chicken is sustained in the egg by its albumen without touching the shell, so chaos sustains the globe and prevents it from tottering. This chaos is invisible, though it appears of a slight green tint. It is an intangible albumen, having the power and property of sustaining, so that the earth shall not fall from its position. As the chick in its albumen, so this globe of earth and water is balanced in the air. As a ship is borne up by the ocean, so is this globe by the air. It is one vast and marvellous albumen which invisibly supports the globe of earth and water. It bears up even the firmament itself, which is placed in it as the seed of the cucumber is placed in its mucilage. And as every morsel of flesh lies in its own liquid, or the generating seed in the sperm, so the stars lie in this albumen, and move therein like a bird in its flight. In no other way are they borne up than in what is clear from the illustrations which are named. There is at least only this difference: that the chaos is unlike the albumen or the sperm, in that it is impalpable and extremely subtle. Otherwise, in all its powers and energies it corresponds exactly to those things which have been enumerated.

TEXT XI.

While discussing the powers of this element, it should, moreover, be pointed out that the air and its chaos and the sky exist in a round form which is inherent in them. No one can point out or distinguish what is above or what is below. Let us give an example. If it could be brought about that one should be shut up within an egg, it would be impossible to know which part looked towards the sky and which towards the earth.* The rotundity prevents there being any "up" or "down." So we are prisoned within a shell, and do not know which is up and which is down. Walking over the whole world, we look up to the sky, and everywhere there is height, whilst at the same time everywhere there is depth. The cause lies in the rotundity of the globe and of the sky, and thus it is natural to every mortal body that all things grow in a threefold line, and not only man walks, but also trees, veins of metal, and springs take this course. As God created the circle of the globe and the sky, so he founded also the semicircle, the diameter and the meridian—a threefold line—and other similar ones. For in heaven and earth, in fire and water, are found all lines and all circles. Here, too, are the true Geography, Cosmography, and Geometry. By the elementary geography of the air are conserved the structures of the air, that is, the sun and moon, all the stars, the trees of the earth, and other things, as the minerals of the water and the rest. Here, too, beyond a doubt, is found the true basis of all geometry, where man stands like the straight line looking up to heaven. Of this geometry God alone is the artificer, the mason, the geometrician. From this line nothing falls away or emerges, be it water, fire, earth, tree, man, beast. All things tend towards this aërial geometry, which God made and graved as a mason does the statues on a tower.

TEXT XII.

Now, as to the philosophy of the three prime elements, it must be seen how these flourish in the element of air. Mercury, Sulphur, and Salt are so prepared as the element of air that they constitute the air, and make up that element. Originally the sky is nothing but white Sulphur coagulated with the spirit of Salt and clarified by Mercury, and the hardness of this element is in this pellicle and shell thus formed from it. Then, secondly, from the three primal parts it is changed into two—one part being air and the other chaos—in the following way. The Sulphur resolves itself by the spirit of Salt in the liquor of Mercury, which of itself is a liquid distributed from heaven to earth, and is the albumen of the heaven, and the mid space. It is clear, a chaos, subtle, and diaphanous. All density, dryness, and all its subtle nature, are

* Air preserves the elements and all creatures, so that they may persist in their course and centre. Land and sea are the centre of a circle of which the air is the circumference. Earth and water constitute one globe, resting on nothing, but free on all sides, being encompassed by the element of air, which is like a vast chaos, which conceals that which is called heaven by the ignorant. Within this chaos all creatures are included and involved. Between the circle of the air and the globe of earth and water which is at the centre, a sustaining operation intervenes, which may be compared to the albumen interposed between the shell and yolk of an egg.—*Ibid.*

resolved, nor is it any longer the same as it was before. Such is the air. The third remnant of the three primals has passed into air, thus: If wood is burnt it passes into smoke. So this passes into air, remains in its air to the end of its elements, and becomes Sulphur, Mercury, and Salt, which are substantially consumed and turned into air, just as the wood which becomes smoke. It is, in fact, nothing but the smoke of the three primal elements of the air. So, then, nothing further arises from the element of air beyond what has been mentioned. Many of the ancients and later writers, nay, even some now living, ascribe wind to the air, making out its cause to be the mobility of the sky. That is all nothing. It never reaches the sky; and the air is by itself, coming forth from its element as smoke from wood. Whoever wishes to understand more clearly about it, and what its motion is, let him read about the properties of fire, where more is set down than can be here comprised.

THE PHILOSOPHY OF THE GENERATION OF THE ELEMENTS.

BOOK THE SECOND.

Concerning the Element of Fire.

TREATISE I. TEXT I.

WE have spoken thus far concerning the element of air, according to the position in which the elements have been arranged. The air is first in position; next to it is the fire. These two constitute and surround the entire globe.* We shall next philosophise as to what concerns the element of fire.

First of all, from the Iliaster were separated the air and the fire. Afterwards these two were sundered the one from the other, so that the air occupied the first place, as we pointed out in the former book. The next place to this the fire occupied. By a process of separation, these two elements, air and fire, were divided. From the air were produced the heavens; from the fire came forth the firmament. As in the air there is only chaos and nothing besides, so, in the element of fire we find nothing but heat and cold, light and darkness. But, whatever withdraws from the globe and from the air, is sustained in the element of fire. It is not, however, called the element of fire because it can only burn, as many have foolishly said. It is not the element of fire which burns, but that which burns and is contrary to it, is congelation. The element of fire is not by its constitution warm and dry; the cold and the moist come from the element of fire. They are quite beside the mark, then, who seek the element of fire in the element of earth or of water. Though these probably produce something of a warm complexion, still that warmth does not constitute the element of fire. This element is not, therefore, called an element because it is fire, but rather because in it the whole firmament subsists. It is an element from which should proceed day, night, brightness, white or red, rain, tempests, winds, and all impressions. It is also the place and portion of the four parts of creatures. Therefore it is called an element. For as the earth gives heat and cold together, though it be the element of

* Fire and air constitute the chaos which encircles the globe of earth and water. The two superior elements send down their impressions upon the two inferior. Fire is disposed and digested by God into the stars. - *Ibid.*, c. 7.

earth, so is it to be understood also of fire. Yet there is a difference, because material fire is called an element when it is not really an element. It is not even produced by the element of fire, but it is like elementary fire in that position when it looks towards the sun. So also the water is like the element of fire in a place where it rains. Material fire, which we use, is in the four elements; it is called Tristo, and exists in them thus: The element of water requires the element of fire for its operation. That fire remains in the element of water, and shews itself in steel and in those stones where it exists. So is it with the air, and so with the other elements. Each has its own Tristo within itself, as is demonstrated in the Nature of Things. So, too, the sun can shew its element in wood, can kindle and burn it, because it is of the same nature as that by which the element of fire moistens the earth with rain. As the element of fire moistens the earth, and it is its nature and property to do so, it kindles wood also by a mirror in the sun. The material fire is brought to the globe just as rain to the earth. Both come from one element divided as to their nature. But the fire which is extracted from stones and metals has penetrated thither from the sun by means of its own Ares. As the earth is nourished by the sun, so is the one element by another. Of the three primaries, Salt could not coagulate unless the element of fire were in it. So Mercury could not give a body unless it contained in itself the element of water. So neither is Sulphur without its terrestrial quality. The air is without material or body, impalpable. Therefore, of itself, like the other elements, it cannot give a body; but it works together with it, as the rest do.

TEXT II.

Having thus far explained the separation of the two elements, fire and water, it remains to speak of their order, which is as follows:—Originally the distribution of them was made into the sun, the moon, and the other stars. Beyond these there is no element of fire. Whatever virtue they are endowed with beyond this is only trifling. This is more fully shewn in the treatise *De Naturâ*. Here it is sufficient to know that this element, the firmament, to wit, is nothing but stars. What these produce and send on the earth, as snow, rain, wind, hail, cold, heat, night, day, summer, winter, and the like; all these things come from the element of fire, as an infant from its mother, or an apple from its tree.

This element of fire is placed in the element of air. For as the water and the earth are comprised in one globe, so the fire and the air are mingled in one, neither injuring the body of the other. They move freely in the air, not leaning or propped up on any foundation. As birds fly in the air, so the sun moves in the sky, that is, in the air. For just as it is appointed that man walks on the earth, the bird flies in the air, the fish swims in the water, and the gnome lives within the earth, so has it been arranged concerning the elements, that one lies still, another flies, one is in this mode, another in that, not moving from one seat or place. Every star has its own special orbit, nor

does one collide with another. For as no one man walks exactly like another, and yet there is one mode of progress for all, so is it with the stars. And as men by Nature are not precisely alike, neither are the stars; so manifold is their nature and condition. On this topic one need not philosophise more deeply than to say that all these things are arranged and constituted by fate.

TREATISE THE SECOND.

Concerning the Sun, Light, Darkness, and Night.*

IN the first treatise it was stated that the primal Iliaster was furnished with all the colours, and with brightness and splendour all mingled together. From thence the four elements were secreted. Herein shall be stated in due succession what was added or subjected to the element of fire. In the beginning the first element, that is to say, the air, was extracted from the Iliaster, and afterwards the element of fire. From this a separation was made. First of all the white brightness was drawn out, and therefrom was made a material body, the sun. Therein is all the white brightness of the element of fire, and besides this is no white brightness at all in the whole element. The red transparency was also extracted and transferred to the stars, that is, to the moon and the other stars, which were distributed into many parts. While the white brightness was conglobated into one form, the red brightness was divided into many parts. Hence now follow day and night. For since all the white brightness was coagulated into one globe, it will be day wherever that globe is. Where that globe is not, there is no white brightness, but it is night and darkness; for the red brightness transfers no light to the white brightness. Moreover, it must also be known that in the element of fire two natures exist, a warm and a cold one. Heat is universal in the white brightness, cold in the red. All fire which is warm is in the sun, and not in any element besides. All coldness is in the stars; there is none in the sun. Hence it is clear that summer comes from the sun, winter and cold from the stars. In the sun is an expulsive heat, in the stars an expulsive cold—thus: The sun emits from himself heat to the earth by means of his rays. For just as the wind blows from its cave, or as from the ground a stalk rises above the earth, so heat goes forth from the sun over the globe.

* All the clarity which in the element produces night is fiery and twofold—white and red. The white is from mercury and salt, the red from pure sulphur. These two colours inhere in the three principles by reason of the predominant fire in the substance. The same are divided, the red into one part, the white into the other. The first is distributed among all the stars, the second into one only. But if the red, like the white, were compacted and digested into a single star, instead of into so many, the red splendour would be equally great with reference to redness as is the white with reference to whiteness. On the other hand, were the white star distributed after the manner of the red, there would be a faint and perpetual daylight. Such a perfect and condensed splendour would not illuminate the earth, but one weaker and more divided. The universal splendour of the mercury has, however, been concentrated from the three prime principles into one orb or star, which receives its motion according to the will of the Creator. The motion of this star takes place round the globe. When it radiates upon the earth there is day, but elsewhere night reigns, for all the brilliance of day is in it, and without its radiation there is no brilliance upon earth. The red brilliance of the other stars is the light of the fire in red, only in sulphur, where there is no mercury or salt.—*De Meteoris*, c. 32

Heat is the fruit of the sun on the globe, and it has no other fruit. Hence it follows that the sun has two operations, a greater and a lesser heat, in this way. The sun divides his heat in two modes. Hence it is granted to the stars to lose their coldness. The matter stands thus: For us Germans if the sun is supreme his heat is greatest with us. Then the autumn and harvest are at hand. In winter the cold comes on, not because the sun is low and depressed (for it is the same sun which can by his rays shed heat everywhere), but because his harvest is not then imminent as in June. All fruits are then in a state of repose, and have been harvested. But below us, in Ethiopia and other places which verge towards the antarctic pole, the sun is warm while with us he is cold, for this reason: because it is his harvest-time, but with us the fallow season. This fallow season he makes more or less. Everything which has to produce fruit needs rest and sleep; and unless the sun were lying fallow, its heat would be equally intense with us in winter as it is in summer.

In the meantime, while the sun is lying fallow, the harvest and autumn of the cold stars are substituted, so that during the whole year there shall be no sterility, but fruits shall be constantly produced. Now the snow falls, and the north wind blows. Then follow the east and the south winds, which are the attendants of the sun. Thus are produced winter and summer, night and day, and the whole year. In this way is there transition from one autumn to another through the year of the sun and the year of the stars.

Moreover, on this subject it must be remarked that dryness and humidity occur thus: Dryness is in heat, that is, in the sun. There is no other dryness in the whole element of fire save that which the sun has in himself. Moisture is in cold, that is, in the cold stars, which are of red brightness. This is the true state of the case. Humidity cannot coexist with heat. Heat consumes all moisture and brings back dryness. Coldness never coexists with dryness. What is cold is dissolved if heat coagulates itself. Thus the element of fire is divided into two. In one is dryness, and this is in the sun; in the other is humidity, and this is in the cold. If coldness sometimes seems to be dry, the dryness is only as when one sweats in the sun, where that moisture is quite foreign. So is that coldness foreign too. It is true, indeed, that a humid body on the earth can be dried by the stars, though not on account of their dry nature, but on account of their cold nature, whereby they are able to coagulate so that a thing seems dried up. Thus must their nature be understood as frozen water. Such, too, is the method of the sun for rendering moist. By its heat it melts wax, so that it liquefies, as does tallow. But what has this to do with the matter? Nothing. These things are only given as illustrations. There is dryness, too, in the stars, for instance, snow, hoar-frost, sleet, hail, lightning and the like, as metals and stones coming thence. But what is the dryness of snow, which does not last? In what respect is a metal dry which returns to its original matter? And so of the sun. Where is his humidity? It does not last. What is it if, indeed,

he moistens fat? No sooner has he withdrawn than it is dry again. Afterwards it is no longer moistened. It is the same, too, with fire. It dries wood so that it never afterwards grows damp again, that is, so long as it is ashes. But what does the star do? It wets Salpalla so that it never again returns to dryness, but always remains moist. The stars moisten the rain, which always remains moist, and is never again dried. Wherever it is poured out, wherever it breaks forth, it is always moist, always wet. So, that which is dry remains in heat; what is wet, in cold; dryness never grows wet, and moisture never grows dry. In like manner, lime remains lime; glass, glass; wine, wine, etc.

But in order that the element of fire may be more thoroughly understood, we will, in the first place, describe the sun, the account of which is as follows: All heat is drawn together and rounded out into Magdalion. The whole white light is therein. Thus, then, white light and heat make up Magdalion, composed of ignited white Sulphur, congested into one body of noblest Mercury, pre-eminent over all the other elements, and coagulated by the most subtle spirit of salt. Out of these three the sun exists, so dry and so warm that there is place for no humidity, but it would all be consumed. In this way, both the daily rain and whatever water is poured out by the three other elements is consumed by the force of the sun, lest a too copious supply of water should cause inundation. So, then, the sun is the death of aqueous nature, both of the sea and of the Rhine, Danube, Nile, and Tiber. They are consumed by the heat of the sun so that they do not increase in volume. Death exists in all things for this very purpose, that they may not increase too much but may keep within bounds. So man has his own form of death, which is invisible. So dryness has its death, namely, water. So, too, the waters have their death, fire; and it is not true to say, that what the fire consumes reappears elsewhere. It perishes entirely in its own form.

But the spirit remains, and this the sun consumes. It is the veritable death, consuming and taking away the other three elements—alike with man on the earth and with the bear in the cave.

But now to philosophise more about the sun. It regulates its course by Divine providence, which decides when and how all things should exist. By this it is arranged that the sun going round the globe rounds out its circle for the sake of this autumn and harvest of the sun. In this course is nothing but day and night, summer and winter, light and darkness; and the darkness which falls upon some lands is intercepted from others in due succession. From this impetus and motion no wind is aroused; but the sun moves and proceeds just as a ball is driven along the surface of the earth, without any wind arising, or as a ship in the sea, which does not of itself generate any wind. So neither does the sun produce wind. It does not grow warm by its motion; for, although the globe should roll on for a hundred years, it would not of itself grow warm. If it be warm, it must have been warm before. So the sun going upon its course is a globe, and may be compared to birds in its

mode of motion. It even diminishes heat, that is to say, if it be fallow. But its brightness remains always and under all circumstances. For Magdalion is fixed, and will remain from the first point of time to the latest in one shape and appearance and one proportion of light, of Sulphur, Salt, and Mercury. These have only one year of their fixation, which will endure from the first Iliaster to the last Iliaster, wherein the world will be renewed. I say there is one year, the year of the sun. In like manner all the stars have fixity. That is the year of fire, or the stellar year, yielding place to the time of the year, as if to its own daughter.

But, now, in due course, we must speak of the other stars in which exist coldness and red brightness, as, for instance, in the moon, planets, and the rest. In this red brightness is a different kind of rest from that in the sun. For the moon has no fallow season, but simply dies and departs. The seed only is left there, from which the new moon is born. And the generation is of such a nature that it gains its power of increase from the sun. Whatever grows does so by force of the sun's heat, and without that heat nothing grows at all. When, therefore, the Creator made the moon after such a manner as that she should wane and wax, He did it for this purpose, that the moon, like seed, should be united with the sun, and should thence acquire her power of increase. Thus it is that she increases and comes to fulness, and then afterwards wanes. For whatever increases, the same also decreases. As man by disease wastes away and dies, so the decrease of the moon is her sickness even to death, wherein she passes away, leaving only her seed behind. The moon is, in fact, the phœnix of the firmament, from which, when it dies, a new one constantly issues forth. So, in like manner, there are other stars, and they are made up of the redness of Sulphur, Mercury, and Salt. And there is a cold of Sulphur, Mercury, and Salt, too, which has its origin in that virtue from which the sun, too, received its own. Thus it is that the moon has such strong influence over the earth on account of her coldness and her humidity. She is superior to all the other stars in this element of the coldness of fire. The other stars, too, are composed of these three primal elements; but, still they are divided into many parts. For the cold in the element of fire is divided into a thousand essences and natures. Thus, in some stars are produced winds circling over the entire globe; in others, snow, rain, and the like, have their origin. In truth, so manifold are they, that manifold natures and virtues flow down from them to the earth; and this could not otherwise be the case if there were but one Magdalion, like the sun, possessing only a single nature, heat. Therefore, in the stars there are many cold natures. Now, cold produces many more forms of effluence than heat. A warm man is a healthy man. A cold man is exposed to more misfortunes than twenty warm ones. Since, therefore, cold has a nature which is contrary and opposed to the sun, the element of fire is divided into many stars, so that each virtue should exist by itself without the impediment of another nature. From these come forth warm winds, warm showers, warm tempests, and the rest,

coruscations, dragons, lanceæ, and the like. Yet, all these are cold fire, without ardour. On the other hand, what is warm and burns has its origin from accident, as the special chapters demonstrate. An entire section follows on the properties of the stars, as to the necessities they produce, and giving what is necessary for a description of their natures.

Concerning Winds.*

Through the course of the globe, there are scattered the windy stars which continually bring round their autumn and harvest. They surround Zedoch in a circle and at the same time embrace the globe above and below. As, therefore, the firmament goes round the globe in its rotundity, and the round globe lies therein, so the stars consist in the circle of Zedoch, and the globes touch Zedoch in the midst. Two winds, therefore, proceed to the two sides, and separate above and below, that is, one part to the arctic and the other to the antarctic pole. These stars are actual stars of the winds, because they blow upon us annually, and have their own year, which is the year of the winds. The other stars of the winds blow above and below us, not according to the year, but sometimes they blow and sometimes they do not, and infringe upon one region only, wherever that may be. The true stars of the winds blow each according to its year continually, above and below, across the whole globe, and are without hail, without lightning, without frost, without coruscation.

* Since the meteorological principles have now been abundantly explained and recognised, the next thing is to impart some information concerning meteoric things generated, or their generations. But we will first write of the rise or generation of the winds, proceeding from their predestined circles. There are four parts of the orb and circle of the winds; one looks to the east, another to the west, a third to the south, a fourth to the north. The manner of the circles is as follows. As in the middle of the firmament there are placed two elements, earth and water, and the element of air stands between the element of heaven and the lower globe—as, I say, the earth is placed in the middle, and the heaven surrounds it completely, so there proceeds or advances a circle transversely on a level in the middle of heaven, earth, and water, similarly surrounding. . . . In the same way you will further note that heaven goes round the world with a certain circle. In this circle stand the mother of the winds, and the places whence arise the predestinated winds. If these are about to emerge from that circle, they blow upon the globe through the element of air. But while they are arriving at the rotundity of the terrestrial globe and dash upon it, it is possible that the winds may be either stirred up below the globe and impelled towards those who live below us, or may be driven above the globe to the dwellers on higher; or again may be divided and driven in either direction through the heights and the depths of the globe. Thus the winds are impelled through the air beyond land and sea, and persist until they are worn out by reason of the distance, the way, or the violent motion, etc. Each of these four parts has a nature peculiar and proper to itself, for the oriental part is warm and dry, not being so on account of the sun, or because it occupies the east, but because such a nature is derived from the three prime principles. Therefore, also, in the true south-east wind and its satellites no other nature and operation are perceived than warm and dry. On the other hand, the west wind, by the setting of the sun, is cold and humid, not because it rises from the west (for the complexion of the east and the west is one and the same), but because the matter of the winds has been created cold and humid in the west. From the north blow winds of a cold and dry nature, which they also impart to those regions, not that the winds are so affected by the regions, but the regions receive that nature from the winds. The south wind is warm and humid, not because much water is accumulated there, or that moist and humid places abound there, but because such is the peculiar nature of this wind, and it is imparted to the region that it occupies. For this is to be observed, that the winds acquire no property from without, but are tempered from themselves, and are not affected by their regions. The generations, therefore, of the winds are circular, from their proper nature. They are produced from their stars, and the stars are their mothers. Stars of this kind are innumerable in the four quarters From these all the winds proceed. For although winds are also stirred up by the stars of rain or hail, yet they are not enumerated with the circle or the four cardinals. And since we have already spoken of the place and dispersion of the winds, because they flow from the farthest heaven across sea and land, it must now be added that those stars have the power of generating winds, and disposing of them according to their nature and quality. As a tree puts forth its fruit out of its internal nature, which consists in wood and marrow, so also the same is to be understood of the stars. But the seed of the winds is the first matter of the three principles, salt, sulphur, and liquor. These three are the mothers from which are born those fœtuses which we call winds. In the northern quarters they are of a cold and dry nature; in the south, warm and humid; in the east, warm and dry; in the west, cold and humid. For as is the nature of the three principles, so are their fruits. Moreover, you must know that the winds arise from their stars by

There are very many which surround the whole Zedoch, like the Galaxy, and over against the Galaxy is Deneas. Concerning the elementary nature of these stars it may be said that they are all humid. Antiquity has given to these four names which we retain, though not with the ancient interpretation. All those stars which are situated at the north throughout the entire Zedoch are called Boreas. Censeturis is dry and cold, yet not altogether dry. It is cold and congelated, that is, its humidity is coagulated, whence it appears dry. Zephyrus comprises the western stars, all being humid and cold, but not congelated. So it is that by comparison with these Boreas is accounted dry, on account of its congelation. The other stars in Zedoch, Eurus and Auster, are altogether cold. As soon, however, as the winds issue forth from their stars, they become warm by the sun whose beams they pass through, and thus they are held to be warm, which they are not by their own nature. Eurus is accounted dry, but is not so. The sun consumes the humidity which it possesses until it comes to that moisture contained within it, which the sun cannot take away. Auster is called humid, and is so because the sun does not take away so much of its humidity as in the case of Eurus. That is prevented by the sea, which supplies to the sun sufficient moisture for its consumption. So Auster with its humidity bursts forth on us throughout the lower and the upper part of the globe.

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rule of time and season. For they retain the nature of the three principles. The variations of their strength are in proportion to the distance they have travelled. . . . Boreas is affected by the summer but not by the winter stars, and if it be impregnated with sulphur it produces sulphureous maladies ; if with salt, it dries up and cracks the skin. The south wind at its proper season, namely, in spring, is most healthful. These risings of the winds we are able to prove by a terrestrial example. Water boiling in a jar emits a wind ; so do all boiling substances, whether dry or humid. Moist coction, as of water, produces a moist wind ; the dry coction which is known to the alchemists occasions a dry wind. There is no other generation of the winds than when the three principles are set in motion and driven to their work by Vulcan. This action produces wind, and imposes its own nature thereon, whether warm, cold, humid, or dry. We must understand that God has constituted a generation of the firmament of such a nature that the three principles should generate and produce all things in their places to which they were ordained by God, and should by their operations tend towards the centre of the earth. Above all things, therefore, it is necessary that the three principles should be rightly recognised. These three principles are all of an igneous nature till they arrive at their operation, that is, at their ultimate matter. Sulphur is a fire which burns ; salt nitre burns also ; and it is in like manner with mercury. Now, fire cooks wind, and in the generation of winds the stars are vials and cucurbites, containing in themselves meteoric sulphur, mercury, and salt, which operate in these phials by means of our ethereal Vulcan. From these ethereal operations ethereal works are produced, such as the winds. . . . From earthly examples we understand the operations of the firmament, not, indeed, according to one grade, for as the heaven is higher than the earth, so also is it stronger ; and as the heaven has more of clarity than has earth of grossness, so much more sublimely graded and intense is its operation. That which is unseen by the eye is judged analogically by things which the eye beholds. But you must know that the hour and time of the generation of those winds must be fundamentally understood by astronomy and all its branches. If the winds blow, they advance to places suited for them. Much concordance produces strong wind. To frequently concord and generate is frequently to excite winds. Many species and a strong Vulcan generate mighty and violent winds, which root up trees and demolish houses. For the wind is, according to its own nature, as corporeal, and substantial as stone or any matter hurled down from a great height. And although a stone is one body and wind is another, yet the latter is capable of great bodily destruction, for therein are invisible as well as visible corporeities created by God, diverse in appearance but equal in virtue. Concerning the origin of winds it is then to be concluded that they are generated in windy stars above, and by the operation of Vulcan they are matured at their proper time, when they dash forth into the centre of the globe, transforming all obstacles into their own nature and property. As Boreas coagulates, so the south wind dissolves, the east preserves, the west putrefies. They perform their operation according to their implanted nature. But if they blow at those times when their innate malice is removed from them and modified, they effect nothing of importance. Among other things, the wind exercises great force upon the waters of the sea, stirring up tempests, and so penetrating through everything that it enters through the depths of the sea into the earth itself, whence it again issues through mountains, caverns, etc. In this way tremblings of the earth are generated, although this is not the sole cause of such occurrences. Wind has the power of penetrating all stones, all metals, and all things without exception.—*Liber Meteorum*, c. 5.

As to how wind proceeds from the stars, this must be held to be the method. As the sun pours its heat on the world, so in these stars there is no other nature and property except to produce winds, which are decocted from Sulphur, Mercury, and Salt, and issue forth according to Adech. Their wind is daily, hourly, blowing gently and peacefully over the whole world. So the respective winds must be learnt in the course of our exposition as to the other windy stars.

Concerning the Temperate Stars.

Zedoch.

The following is the theory concerning the stars in the firmament.* Every star has in it a certain amount of frigidity. This causes winds. Cold is the parent of all winds. But the nature of cold is that some cold produces winds with rain, some with snow, some with hail and the like. The truth is that all winds, intermittent and temporary, proceed not from Zedoch, but are collected from all quarters out of particular stars. The mode in which all winds are generated is as follows:—By means of frigidity the stars periodically beget their own vacuum, which is manifold in

* The philosophy concerning the stars in the firmament and, generally, concerning the constitution of heaven, is discussed elsewhere at greater length by Paracelsus, and in connection with the four elements, as follows: Of the elements it has been said that they are four. Man has need of these. But they are divided into four complexions, which are by no means as the ancients have imagined them, as, for example, that the earth is cold and dry. This is without foundation; certainly in some places it is cold and dry, but in others it is cold and wet, while in yet others it is warm and dry. Nevertheless, it is an element, that is, the mother of fruits. It is called an element, inasmuch as it is the mother of these things, not on account of the complexion. The case is the same with water. This is specified to be cold and humid. It ought certainly to be humid, but not equally cold. At the same time, that humidity is often dry and warm, by reason of the virtue. The body itself, in its corporal nature, is humid. The earth is dry, so that its fruit can be conceived in it and come forth from it. So, also, the heaven is not of one complexion, but of many complexions. It is not fire, but is understood as fire, because it proceeds therefrom. The fire thereof is at times a water, at others a fire, now cold, now warm, etc. We must consider, therefore, that the elements are only matrices, nor are they restricted to one complexion. For, as the offspring is, so is that which generated and produced it. Thus, a flammula proceeds from a flammula, and solatrum from solatrum, Accordingly, hearken concerning these things. It pertains to the earth to bear and sustain man and his dwelling-place, as also rocks, stones, sands, and all growing things. Hence it is clear that the earth is necessarily compact and solid, so as to be capable of bearing them. Consequently it is hard, and requires to be cut and ploughed. It is, in like manner, equally necessary for water to be moist, so that fishes may move and swim through it, which can by no means take place on land. The same ought also to produce salt and stones. Now, all these things must be humid in their first matter, and must pass from humidity into a coagulate. But that which is born from the earth has seed, that is, a dry body, such as are seeds, roods, trees, etc. For all these things are dry and compacted from the first matter. But in the first matter of water there is no compact body, the whole being liquid. The matrix hereof is from the element of water. In this element grow those ultimate matters, the principle of which is liquid and humid. The third body is the air. This element has need of another kind of body, which must not be humid like water, or solid like earth. Out of this element whatsoever things are born have their ingress in the body of the air, just as the fish in water. Man has been surrounded by an aeriform vehicle that he may walk in it, as the fish moves in water. Thus the air also sustains all trees and whatsoever grows. It is necessary, therefore, that the air should be a chaos; not earth, not water, but something perspicuous, diaphanous, impalpable, invisible, so that the palpable and the visible may be insphered (literally, *toucheat*) by it, and may be seen through it as through glass. Furthermore, the heaven is a body of this kind, not humid as the water, not perspicuous as air, nor solid as the earth, but one of another essence, so that heaven is not earthy, but is yet compact in its essence, not, however, with terrene compactness. It is also tenuous and permeable as water, but still is not water; it is likewise limpid and perspicuous without being air. It is most comparable to smoke, which is diverse from other bodies in respect of corporality and substance—that is, it is not like stone or wood, earth, water, or air, but is a body without mixture or affinity with others. It is in like manner with heaven, and the bodies which are born therefrom are at once bodies and not bodies, compact and not compact, permeable like water, yet not water, perspicuous and impalpable as air, yet not air. Such a body is the sun, such is the moon, and such are the other stars. Heaven is without complexion and the element of fire, and the matrix out of which fire is generated and grows. For as fire has a certain corporality, so have heaven and the stars, which take their nature and substance from heaven. Consider, therefore, that such corporality is derived from heaven, the peculiar quality thereof, and the very element of fire; and whatsoever fire is about to do, the same is performed by heaven, whence fire proceeds. But we must make inquiry concerning the colour of heaven.

character. But as to the winds, the following is the received theory. The stars have their own emunctories, by means of which they excrete those things produced in them to which the emunctories refer. The duration of the wind is as long as that required for the purpose of emptying. The stars Zedoch perform this process of emptying every day, and raise up winds in the world for moderating the heat of the sun and dispersing the cold in the frigid portions of the earth. They mitigate both heat and cold, and are the most perfect moderators of summer and of winter alike. When these winds do not obviate such a result chaos is frozen just like water. The reason why water is frozen is that the winds of Zedoch do not penetrate it. They penetrate chaos, and therefore do not allow it to be frozen. There is no other use of winds except to mitigate each season of the year, and to moderate their excesses, which might otherwise do damage.

The common nature of all the stars comprised in the sky and the firmament is that, every day, nay, every hour and moment, they exude. For the stars attract to themselves the heat of the sun, just as the fruits of the earth absorb the same. The solar heat causes the stars to be resolved from their

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That of earth tends towards black. Whatsoever is of another colour therein belongs to minera. So water has its own colour alike through all things. Its colour, however, has no name, for it is neither white, nor grey, nor blue, nor green, and yet it can be called all these. Earth, too, is really neither black nor purple, and yet up to a certain point it corresponds with both. The case is the same with air, which is pure and pellucid in chaos, and yet is neither white, nor blue, nor citrine, etc., while it is still partially assimilated to these. So also heaven has its special colour - like blue, like red, like green, and yet none of these colours is present therein otherwise than apparently. For elementary bodies are so formed as to have no perfect colour by which they may be named. But the things which are produced from them have their distinct, determinate colours, and to these names can be given. Thus, many colours are produced from the elements, and they are therefore composed of many, even of that number which they produce from themselves. From the earth proceed blue, red, black, etc., while from water all colours come forth, and so also from air and heaven. Accordingly, colours are collected from many into one, heaped together and mixed, and such mixture produces no express, determinate, and definite colour. Give heed to an example taken from heaven and its fruits. For ye see that everything which grows from the earth has its palpable foot and root, as are trees and herbs, etc. But the stars are the fruits of heaven, yet they do not put forth their roots in heaven, for they stand immovable below the heaven, without any support or attachment. Earth and heaven are opposite in this respect - one yields its fruits with roots, the other without; one tends upwards, the other downwards, and as fishes rest upon nothing, and, without feet, swim about in the water, so in like manner, stars swim about in the heaven, that is, in the body of heaven, preserving that order which God has prescribed them, some moving at a higer, some at a lower, level, at different distances apart, and with a quicker or slower motion. The details of this question must be referred to astronomers, but this, at least, should be remembered, that heaven is a body which, like water, is capable of sustaining a swimming thing, yet it is not water, but dry, while that which floats in it is also dry. It is not strictly swimming, but has analogy therewith; it is not going or running, since it is not effected by hands or feet; it is the miraculous work of God, and an element which contains and includes all the rest, and drives them in a round or a circle. The stars were born from heaven, and stand therein as if they flew like a bird through the air, according to the order and circle, even as God has destined and formed them to motion. Having been once formed, they henceforth remain for ever the same. The trees and fruits of the earth fall and are re-born. The stars can perish once only, namely, at the end of the world. Whatever else is formed in the elements is eaten away by mould, moth, and death. It is only the stars of the celestial heaven which remain in immunity, and yet their fruits rise and fall, as rain, snow, etc. But they have a unique and special colour, which is fiery. Thus, earth chiefly displays greenness, though it has also other colours. The sun is peculiar in colour, and if the same be igneous, it is not after the manner of wood, but of an element. . . . . We must repeat concerning fire that it has been enumerated as one of the elements, but with manifest absurdity. The earth, indeed, exhibits itself as an element, water in like manner, and so also air. But consider the fourth element. This cannot be fire, for it confers nothing elemental and no fruits upon man, nor does it possess any affinity with man, or *vice versa*, but it has an altogether fatal power, whereby the soul is separated from the body. It is, therefore, necessary that heaven should be regarded as the fourth element, for this is akin to man, nor can man dispense therewith, whereas he can dispense with fire and can live without it. The possibility of his dispensing with fire shews that it is not an element, but such rather is that heaven which brings forth day and night, summer and winter, increasing all fruits, and helping the other elements. The Scripture states that God created the heaven and the earth first. In heaven are the other elements, and even as the jar is made ready before the wine is pressed out, so the element of heaven is in reality the first element, which we have here named for the fourth.—*Liber Meteorum*, c. 1.

frigidity. This resolution is one and the same with that of a cold stone, which exudes on account of the vapour which it has acquired from Mercury, Sulphur, and Salt. That vapour exists in all elementated bodies. For as man, by natural exercise and the process of excretion, purges the phlegm from his nostrils, so do the stars also and all the elements undergo these excretions. This vapour flows down every day from the stars, and falls on the earth. During the day it is consumed by the sun. But by night it glides down to the earth before the sun rises, and is called dew. Through the winter, or during a cold autumn, it is frozen, and becomes hoar-frost. This is nothing else than the exudation of the stars in the whole firmament, which thus falls drop by drop. For as boiling water evaporates upwards towards the sky, or sends its dew on high, so the stars send their exudation downwards.

Concerning Nebulæ.

Nebula is nothing else but a vapour of this kind, differing from the former only in this, that while not yet quite matured, it is excreted by certain stars. When it falls to the earth like hoar-frost, it rests on the earth and the water, and is like smoke. It cannot be completely resolved into hoar-frost or dew. A certain part of the vapour passes into dew, the rest into nebula. Nebula is imperfect dew which has not yet fully matured. If it is thin it falls to the earth and vanishes. But if it is dense, but not yet prepared, it descends to a higher region of its own, where it is consumed by the sun. If, however, it be mixed with rain-clouds, then rain is produced from it, but of a more subtle kind than other rain. Very often nebulæ of this nature descend and produce a spell of rainy weather. For if the stars are rainy they cannot be resolved into dew, but only into nebula. But if sometimes they bring clear weather, the cause is that the nebula, being more subtle in its preparation, disappears on the surface of the globe.*

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* Earth is black, gross, rough, clayey, impure, dirty, and nothing could be cruder. Water is more subtle, pure, and clear, so that the eye can penetrate far into its depths. The air is completely pellucid and intangible, so perfectly purified that nothing foreign can be seen in it. Heaven is, however, by far superior to the air, but, though it is the clearest of all the elements, it is yet a body, which is proved by the fact that its fruits are bodies, such as rain, snow, hail, the thunderbolt, etc., for a body can only be generated from a body. But inasmuch as the heaven is more subtle than the earth, so are its fruits in comparison, and not only in subtlety but in operation. We have said enough of the heaven, but there remains something to be imparted concerning the stars and their risings. The stars bear the same relation to the sky as do trees to earth. But whereas trees have their roots in the earth, the stars are without foundation in heaven. The reason is this: trees do not need to be removed from the place where they are planted, but the stars must describe their orbit, for which reason they are separated from the heaven, while at the same time they are in the heaven. At the same time, they do not remove from their own mansions any more than the tree from its garden. Now, so often as there is a new genus among trees, there is likewise a new genus among stars. The same must be understood of herbs and all things that grow on the earth. Growing things correspond exactly to the number of influences and stars. Every genus corresponds to its like. But as some trees produce pears and others apples, so some stars yield rain, others snow, hail, etc., and in this fashion is generated whatsoever falls from heaven. The qualities which are specialised on earth exist more strongly in the heaven, because that element is superior to earthly things. And as the magnet attracts towards itself, so also the stars attract in the heaven. Accordingly, as certain natures on earth are dry and others humid, so throughout the whole firmament some stars are drier than others. Concerning the operations of the stars, they are produced out of congenital properties, and they arise from the three prime principles. That meteorology is false which makes absurd statements about the heat of the sun, of its motion, or other modes of generation, made by attraction from the earth. There is no star which attracts rain, and then again pours it down. The operation of rain proceeds from a nature congenital thereto. Even summer and winter are produced from the stars, the sun being supreme among those of the calorific kind, which arise at the beginning of summer, and

CONCERNING METALS, MINERALS AND STONES FROM THE UPPER REGIONS.

TEXT I.

Concerning Metals.*

THE metals which come from the upper regions derive their origin from the seven planets. But these planets are manifold. There are many suns, many moons, many Marses, Mercuries, Jupiters, and Saturns. They are only called seven because they produce seven metals, and one kind of metal is ascribed to each planet. Those are not planets which the astronomers point out; and they are in error when they assign these to the metals: nor are they unanimous among themselves in what they do say. From these seven kinds of planets proceed the seven metals, and they are the same in the first three, just as in the element of water. The only difference is that in the first three they are volatile, not fixed, in their species. In this way the metals which are found do not stand the test of the lower metals. Neither, again, do the lower metals stand the test of the superior ones. There is not one and

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are strengthened by their own heat till they reach the supreme grade, when again they gradually fail. Then the winter stars rise in their turn, display their own nature, afterwards die out, and are succeeded by another summer. The varying cold of winter and the varying heat of summer are occasioned by mutations in the potency of the respective stars. The moon is chief among the stars of winter, and is furnished with no small escort. Were the summer stars to fail, there would be no summer, for the sun, whether high or low, dispenses an even heat. Unless, therefore, the summer stars were to arrive, perpetual winter would prevail. The summer stars, however, derive their increment from the sun. So, also, we must not assign a diverse origin to day and night. The day arises from the light of the sun, but the night from the light of the moon. The departure of the sun by no means causes night. It is the peculiar nature of certain stars to produce darkness, which is so gross that unless the moon interfered with her presence, nothing whatever would be visible. Such a course, therefore, has God imposed upon the stars, that, going round the whole firmament, they retain their order and continual progress. For lest they should cease, or have a general holiday, God has ordained that when some are absent, others are present to fulfil their operations. So the nocturnal stars take the place of the receding sun. The bodies of the three prime principles are the cause of those bodies whence day and night proceed. The sun is a perspicuous and diaphanous salt, clarified and extracted from these principles, being purified from all obscurity. Its brilliancy has been extracted from the mass of the first matter of heaven. And whereas that is a white brilliancy which has been digested into the sun, so has a red into the moon and stars. The transparency and perspicuity of the white were extracted in sulphur, salt, and liquor, to make the sun thereof. Afterwards the brilliance of the red was put into a body of sulphur. Thus salt is the body of the sun, sulphur that of the moon, while liquor is the body of darkness.—*Ibid.*, c. 3.

* Metallic natures also subsist in the element of fire, for as in heaven there are stones, so also there are metals, but differentiated beyond all recognition from those of earth. Fiery thunderbolts, with their corruscations, are only metals, harder than all iron or steel, fluxible as copper, mixed with colours, and formed like a thunderbolt. Their fall is solely owing to some miraculous conjunction of elements, which produces them in bodily form. Many marvellous matters are carried up into the heaven and fall down to us. If it were possible for the stars of mercury, salt, and sulphur to be joined in a like copulation, several impressions of this kind would fall hourly. But the disposition of things is not favourable herein, except in the case of the thunderbolt,—*De Meteoris*, Lib. II.

the same ductility, or fluxibility, or hardness in the one as in the other. Neither are they uniform in colour; there is a distinct difference in them. So, again, there is a volatile nature of this kind in the element of fire, which is the metallic operation and nature of all the seven stars, which also falls down from them to the earth at the same time, just like rain and similar effluxes. Many such metals lie under their own stars, some in Asia, a few in Africa, and fewer still in Europe. These stars do not reach our earth, so that these metals are not found amongst us. All those grains, however, which are among the seven metals, and are rough in external appearance, come down from the stars, and not from the element of water. And all the metals which are coagulated without fire, and are rounded in shape like pulse, of whatever kind they are, have come down from the seven stars, whether they lie above them or not; and the earth strikes against them just as rivers do. But where they are found is neither their source nor their root, but they come forth just like kidneys. Their origin is in the stars, and all have come down from thence. For there, in the element of fire, is no rudeness or density to mix itself up. It purges itself according to its own stars, and coagulates of itself purely and entirely. These metals, just like those in the element of water, exist in commixture with Sulphur, Salt, and Mercury, save that the igneous metals have not a watery fixation, just as the aqueous metals have not a firmamental fixation.

TEXT II.

When, then, the three primals have completed their effect in the metallic star—as when, in the star of the sun, a composition has been formed of the Mercury of the sun with the solar Sulphur and Salt, then they are digested into a perfect metal, by Adech, who shapes therefrom the form of his own gift. Then at length the star throws off its efflux, warm and liquefied, as if from some furnace. This is shaken in falling, is coagulated in the cold, and lights upon the globe. In the same way, also, the star of the moon makes a composition of Mercury, Sulphur, and Salt. When these are brought to their effect (just as in the case of the sun) it casts them forth. The same thing takes place with Saturn, Mars, Venus, Mercury, and Jupiter. It must be remarked, however, that out of the seven kinds of the seven stars, each one embraces the three primals of one metal; not as in the element of water, where in one Ares the seven are latent. The names of the seven metals, therefore, bear reference to the seven metals not of the earth but of the stars. In the same way, too, many liquids fall down from the stars, being not yet in a state of coagulation. If the earth be moistened with these, a brightness rises thence like cachimiæ, talcs, and sometimes marcasites, though it does not fully and perfectly arise from any of these, nor perfectly bears reference to the same. Hence it will be inferred that the superior metals excel those of the lower earth by many degrees, in goodness, in purity, and in nature, and so in all respects deserve greater praise.

TEXT III.

Concerning Stones from Above.*

In the same way there are also other stars which cast forth from themselves gems, granates, and other forms of stones. For Sulphur, Salt, and Mercury in the element of fire possess a powerful force for generating gems. There are many stars which consist of ruby Sulphur, many of sapphire Salt, and many which are powerful in emerald Mercury. There are also stars which contain the primals of copper, vitriol, salt, or alum. Hence, many of this kind appear rainy. If these are prepared they manifest themselves. From these stars are generated sapphires of lazurium. There, Salt is the body, solidly coagulated with pure Sulphur and with the spirit of Mercury. In the emerald Mercury is the body, having the nature but not the body of copper. It has its colour but not its body from copper. In this way, all the colours of gems which proceed from fire are found in proportion to the nature and condition of the three primals which are found united in the ratio of colours in the metals. For instance, in copper there is redness. But these three primals, if they have not a metallic body, become green. So, from silver, if the metallic body be wanting, lazurium is produced ; from iron, a red body ; from lead, the same ; from Jupiter, a clay-coloured one mixed with white ; from gold, a purple body ; from mercury, one that is saffron-coloured. In like manner, also, if only the Salt predominates, it produces various colours, such as are conspicuous in certain stones, purple or blue, either lightly or deeply impressed. Equally, too, that which comes only from Mercury is marked by many colours, saffron, red, etc. That which is from Sulphur has for its prevailing colours, white, red, saffron, black, cœrulean, and so on. These stones are very rare, and those which are of a metallic nature are exceedingly precious. Thus, the emerald is a copper stone ; the carbuncle or jasper is a golden stone ; the ruby and chalcedony are iron stones ; the sapphire lazurius is a silver stone ; the white sapphire is a stone of Jupiter ; the jacinth is a mercurial stone. After this manner, then, stones are generated in their own stars, which closely adjoin the planets, and then are ejected, just as metals are ejected, and so are found in the ftiest parts of the earth, according to the ratio of their generation.

* In the height of the firmament stand the three principles from which impressions arise. Tbese are so high and so lofty that we cannot behold their form, and yet they have a form. We see, however, the green which is their colour. Hence it is gathered that in the element of fire generations of stone also take place. But where stones are generated they fall. Although this be considered wonderful, rare, and unheard of, it more frequently happens in the sea than with us. The generations of these stones take place as follows. If the principles of thunderbolts are present, any number of thunderbolts may be generated, for with every peal there is a stone. The matter of such stones exists first of all in an aerial condition, and is afterwards coagulated into an earthy one, so that the air can retain them no longer, and they ultimately fall to the earth. Furthermore, the matter of these stones may collect into one place in the absence of any tempest, but it will remain aerial until it comes in contact with a contrary nature, when it will at once begin to coagulate and to fall, even as a cloud is precipitated downward in the form of rain.—*Ibid.*

TEXT IV.

Concerning Crystals and Beryls.

Of crystals and beryls it should be known that they are generated from the snowy stars, which produce snow, in the following manner: In the snowy stars, the power of congelation is so strong that sometimes they are of a double nature; that is, one and the same star contains within it both snow and congelation, and so becomes twofold. Now, a star of this nature, which has gained at the same time the power of congealing and also of producing snow, easily generates the crystal, the citrine, and the beryl. For, if snow falls, and frost accompanies it, and, moreover, a place be given to him on the globe where Boreas predominates, while the sun or the solar nature does not prevail strongly, then the water which is in combination with the snow is coagulated into a stone. Now, if this water is caught by an intense frost midway, while the snow is falling, stones are formed from it before they fall on the globe. Thus, large or small granules are found in proportion as the frost has caught the snow in falling. But, if this seizing has not been so sudden, the frost collects and drives together all the water contained in the snow, which, however, is not itself snow, into one centre towards the bottom of the earth, and when it is massed there, coagulates it into ice. This, however, does not again liquefy like other frozen bodies, nor is it dissolved, and that because it is derived from snow-water. Other waters, it is true, which are frozen, are partly snowy, but the snow is dissolved with them. Here, this should not take place, but the water is extracted from the snow. The fact that the snow remains, happens only through the snowy star, wherein, also, the power of congelation subsists, so, that, wherever they meet in one place on the earth, the snow is not liquefied, but goes on to the end of the intention or operation. In snows of this kind are produced stones, such as crystals and the like, pure and dark together, for this reason, because S.S. of Mercury and Salt have clarified and purified themselves. Very often, too, crystals, beryls, and citrines of this sort, are found in places which are not snowy. The reason of this is, that they have been coagulated in the higher regions and have fallen down in that form. They are nothing but coagulated snow-water. But their shape and species and angularity are bestowed upon that in proportion as the Salt in them exists in a subtle or a dense state.

THE PHILOSOPHY OF THE GENERATION OF THE ELEMENTS.

BOOK THE THIRD.

Concerning the Element of Earth.

TEXT I.

Concerning the Earth, Per Se.

TO philosophise concerning the element of earth, its matter was first made on the following principle: Its three primals were separated, as if out of the great Iliaster, from the two primal elements into another form and nature, so that in the beginning not only the element of earth, but the element of water was segregated, and these were afterwards joined together into one globe, which is the centre of the exterior elements. From these two elements, first the earth was completed, afterwards the water. But concerning the earth, it should be known that all the force and nature which lay hid in the Great Iliaster for nourishing not only man, but cattle, by means of food and other necessaries, were collected into the element of earth, and consisted of all trees, herbs, and other growths. But they were so divided from the other three elements that this virtue exists in the element of earth alone, and not in any other element. Therefore this Iliaster is peculiar to the element of earth so as to afford aliment. For this cause the earth is called, and is, an element, because therein consist all the force and power of nourishing things which are due to living beings.

TEXT II.

These three—Sulphur, Salt, and Mercury—are the earth, taken out of the great Iliaster, out of that nature which is the element of earth. For there the element and the three others were one Iliaster, in which the four elements existed. They were, however, divided one from the other, and the Iliaster was divided. Nevermore, then, can the four elements from henceforth be joined or stand together, but each subsists separately by itself in its own place. Those, therefore, labour in vain who endeavour to separate the four elements, or to seek besides these a fifth essence,

From these three primals, disjoined from the other elements, was the matter of the earth produced, in such form as it now is and is seen. And as the air was made heaven, the fire, the firmament, the water, the sea, etc., so did separation bring it about that this element should pass into matter and end in a globular form, and that in it should be included all the virtues of trees, herbs, fungi, so that from it should be procreated in the world all those genera which had been silently sown and had lain hid within it.

TEXT III.

In this element of earth was hidden the seed of wood, of roots, of herbs, of fungi, and also the force whereby the stem rises, and is formed and planted according to the will and pleasure of its cultivator. The seed is here invisibly proceeding from the nature of the element, which alone is that seed, as the abode and seat of the same, in which it is elaborated and prepared. But originally that force is separated into its own genus, so that the two do not remain joined in one, but each genus exists solely and separately, one in wood, a second in the herb, a third in fungus. Each of these, again, passes separately, this into cedar, that into anthos, this, again, into balsam, and that into botin.* Of herbs, too, one passes into meligia, another into a lily with thorns—and so with the rest. But in order that this seed may be rightly understood according to its distribution, it should be remarked that in the separation of the great Aniadus the nature of trees was collected into one place, botin into a second, and ebony into a third. So, too, with others. Equally, too, the great Aniadus so disposed of herbs that into one portion of earth was cast grass, into a second trefoil, and into a third lavendula. For so to each land is given its own herb, and its own tree. We should pay attention to what has been the distribution made by the Aniadus.

TEXT IV.

As to why the Aniadus thus fell among trees so that in one soil should be produced the orange, in a second the plum, in a third the fig, and in a fourth acorns, the cause may be supposed to have been that the fig and the orange require their soil to be of a peculiar kind which should be favourable to their increase, just as they also require an appropriate climate. If now the

* In the botin, the pine, and the fir, there exist two kinds of sulphur—one passes away into coagulation, the other is separated therefrom, and is not coagulated. From the sulphur which is susceptible of coagulation, the wood of the trees is prepared, and the same abounds in salt. It is owing to this sulphur that wood burns, and it goes on burning so long as there is sulphur in it. Whatsoever remains is salt, and this is in the form of ashes. And that truly is salt which the sulphur in trees coagulates into wood, whence glass is made. For salt is fluid. And this glass is the ultimate matter of any salt of wood whatsoever. But the other sulphur which is not susceptible of coagulation gives terebinth, resin of the fir and pine, which inheres chiefly in the wood, and by reason of its subtlety penetrates through the pores outside the bark, either by liquefaction or by a natural resolution. The sulphur which is in botin is more subtle than the sulphurs of the fir or pine, while that of the pine is more subtle than that of the fir. But all three are of one generation, proceeding from the Aniadus, which is united through Mercury. The bark is nothing else but sulphur coagulated after the manner of resin, and it is educed into this form by the Aniadus. For it is a hard congealed sulphur. And as there is no outside in any body without hardness, so is the bark formed from the hardest parts of the sulphur which exists in a growing thing. The branches, the shoots, etc., as also the fruits, proceed, in like manner, from the Aniadus, and derive their special form and character therefrom. This is to be understood also concerning other trees.—*De Elemento Terræ*, Tract II., Tex I.

soil be unsuitable and the climate ill-adapted, the one fruit or the other cannot emerge, but its seed of necessity perishes and never bursts forth. For though it be present there and lie in the earth, it is, nevertheless, dried up by the climate and oppressed by the unfavourable constitution of the soil, which is varied by the variety of the climate, not by its own nature. For the soil is everywhere one; but variety and change accrue to it from the climate, which either encourages or impedes the growths themselves. The sun burns up the genus of lilies, or some other genus; but this rarely happens, for the seed is ready to hand, which Nature produces from the tree or flower. This material seed is the cause why the sun cannot burn up the whole genus of this or that flower or tree, but allows it to come to a condition of vigour: unless perchance it happens that the force of the sun is less than suffices for fertility. Thus in the work of planting, herbs and trees are produced which, on account of the aforesaid defect in the soil, would not otherwise be forthcoming.

TEXT V.

But we must proceed with our philosophy of the earth. The fruits proceeding from the element of earth are twofold. The earth either produces them of itself or by means of seed. In this way all growths are produced by the element out of the soil in two ways; that is to say, either from the proper seed of the soil, or from seed entrusted to the earth. The proper seed is when the earth puts forth a herb which springs from itself. Seed that is sown is foreign and not proper. Here the gifts of herbs are twofold. Neither spelt, nor wheat, nor lily, nor pear-tree, nor anything of this kind, grows spontaneously out of the earth, but all have to be sown. Here the philosophy of this treatise is deep, to find out whence come those seeds which do not issue from the earth itself. If neither spelt nor wheat be sown, none of these things will be produced. But herbage and grass do grow. Herbage and grass, therefore, are growths of the earth itself, not like apple trees and cherry trees. So there remains another philosophy by which we learn whence are produced spelt, whence apple trees and pear trees. You must know that the seeds of all these growths are propagated from Paradise, sown outside it, then planted and cultivated far and wide. These fruits of Paradise come to be understood in the same way as we understand that Christ was God and yet a mortal man.

TEXT VI.

As to the method whereby the seed passes into its shoot, it must be known that the seed takes from the earth nothing more than its increment and formative power. The other is from Paradise, and is taught in the Paramirum.* But as to how much of an element is taken from the earth,

* Every seed is threefold; that is, the seed is one, but three substances exist and grow therein. But even as the seed appears one, so are these three to he understood as one only. Every individual thing is united in its seed, and not divided, but the same is a conjunction of unity. An illustration may be taken from trees, which have their bark, their wood, and their roots, which are distinct in themselves, and yet co-exist in a single seed.—*Paramirum*, Lib. II., c. 1.

that may be understood from the fact that in the beginning the three primals of the earth mix with the seed, so that it tends towards the end destined for it, and becomes that which it is before. For the seed is that which is of itself, but not yet manifested. Out of this proceeds first the root ; from this, afterwards, the stalk. From the root and stalk issue forth the branches. From these three burst out the leaves. After this appear the flowers and fruits. This shoot or growth is formed by the great Aniadus, and is like a man. It has its skin, which is the bark. It has its head and hair, which are the root. It has its figure, its signs, its mind, its sense in the stalk, the lesion whereof is followed by death. Its leaves and flowers and fruit are for ornament, as in man hearing, vision, and the power of speech. Gums are its excrement, and the parasite is its disease. Philosophise as we will about its growth, this is nothing more than its Aniadic nature, which arranges all forms and directs them into their essence for which they were created. Its death and passing away are the period of its years. A pear-tree will stand for ten or twenty years. After that time it dies. Thus a shoot or a tree growing in the earth dies according to the time appointed for its death. Its decay is the element of fire. That is, fire destroys wood, leaves, grass. Whatever is left in the field decaying and passing into rottenness is consumed by the sun and the movement of the galaxy, so that it is no more left on the earth than as though it had never grown there, as happens to wood in the fire. Thus are growing things consumed and eaten away so that no relic remains, but all are removed like dust. The very remnants are so dispersed by a strong wind that not a fragment survives and remains at the expiration of a year.

TEXT VII.

Since, then, trees, herbs, corn, and vegetables are produced out of the earth, the power of this element should before all else be learnt : because some growing things are food and aliment, as vegetables and fruits ; others are drink, as grapes and berberis ; others purge the body, like turbith, hellebore, and colocynth ; others strengthen it, as cinnamon, carraways, mace ; others have their virtue in the root, as parsnip and gentian ; others in the leaves, as pot-herbs and cabbage ; others in the flowers, as ox-tongue ; others in the fruits, as apples, pears, etc. ; others in the seeds, as pepper, nuts, and the like. Now, it is worth while to know how all these things take place. It is the Aniadus of the Earth who thus distributes them. The nutrimental virtues he arranges in three parts, the seed, the roots, the extremities. Thus the apple is a fruit on the tree because the Aniadus thrusts it forth, and shapes the fruit into the form of an apple, or a pear, or a fig, etc. In the nucleus is a species of seed, as in wine there is a species of drink. So, then, the Aniadus, before man, operates the first preparation, and man directs the second for his own convenience. After these, whatever is of a laxative nature degenerates into another growth, as into the mountain brook-willow, the rhabarbarus, or

hermodactylos. Whatever is of a sweet nature passes into sugar, fœnogræcum, liquorice root and flowers. Hence it is that pears and figs derive their sweetness, and bees their honey. Bitterness turns to amarissima, warmth to pepper and grains of Paradise, coolness into nenuphar and camphor. For as in the element of fire everything by itself is divided from another, so also the virtue of the element of earth is divided to its own growth. And yet it often happens that two or three natures link in a single substance. So in cassia there are heat, sweetness, and a laxative nature. In mace there are odour, goodness, and strengthening power. Such is the case with many others, and yet one does not on that account destroy the other. In the same way the power of the element of the earth either makes for health, as in the tare, in persica and gamandria: or it is of a consolidating nature, as in the comfrey and the red artemisia: or in the odour, as in the lily of the valley and narcissus: or in its stench, as in the dane-wort. These are all either produced from the Aniadus, or distributed for the use of those who live on the earth. In this way the mighty gifts are learnt, just as the virtues of the elements which have flowed down from the great Iliaster.

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* As out of the element of earth trees pass off into wood, so in the same element there is a certain sulphur which can be separated and passes off into food. Of this kind are vegetables and cereals. Dry and humid sulphurs are united, being the three principles duplicated according to nature and essence. One of these is for use, the other is not. Thus the avena is sulphur, but it is not edible. The seed, however, is edible. The non-esile sulphur is first of all developed into stalk, etc., and subsequently the esile sulphur is collected into the grains of the cereal.—*De Elemento Terræ*, Tract III., Text I.

THE PHILOSOPHY OF THE GENERATION OF THE ELEMENTS.

BOOK THE FOURTH.

Concerning the Element of Water with its Fruits.

TEXT I.

CONCERNING the element of water, the first things to be considered are: What is its origin, into what divisions it is broken up, and what the element is *per se*. The element of water is a seed from Yle, bringing forth stalks and fruits, that is, water, and its fruits, such as stones and metals of various kinds. Concerning the seed of the element of water, it must be laid down that it is latent in its workshop, just as seed lies in the soil. From this workshop proceed the stalk and its branches and fruits, in this way. Out of this seed is produced the stalk, breaking out of the soil into the light, whilst it remains lying in the earth. For, as the element of earth bears its fruit in the body of chaos, so, in like manner, the earth is a body, which sustains growing things such as trees and fruits from the tree of the element of water. There is no element but requires a body by which it may be sustained. Chaos bears impressions. The element of fire sustains the fruits of the earth, the earth bears up the fruits of water, the water those of the air. Thus, the fruits of each element are borne by some other element. Now, as from the seed of the element issues its tree, so its tree is a flowing stream, distributed throughout the whole earth. All things are one tree, with one origin, one root, from one stalk. And the streams of the whole globe are the branches of this one stalk. All the humour of the whole globe is Abrissach, which falls down from the branches of this tree, and pervades all the pores of the globe with its distillation. For, as the fragments from the fir-trees fall down from above to the earth, so these branches from the water fall down into the hollows of the earth. In this way takes place the generation of the element of water. All the water and all its fruits come forth from the element of water; but they are not the element itself. The element itself is never seen by any, and yet, nevertheless, there is an element of water. From it emanates nothing but water. It is called an element on account of the water and its fruits, not on account of its own complexion and quality, just as is the case with the other elements.

TEXT II.

But concerning its course and goal, as also its seats and termini, the truth is, that the tree has its exit and end of itself, rises and falls, is produced and perishes. Thus, all water that flows forth from it is new, not old, and was never before seen. For, as the element of water lies in the middle of the globe, so, the branches run out from the root in its circuit on all sides towards the plains and towards the light. From this root very many branches are born. One branch is the Rhine, another the Danube, another the Nile, etc. So, there are also smaller branches, all born out of that root which rises from the seed, whence proceeds the element of water. And all the stalks belong to one tree, which is born of the root along a triple line in the circle of the outer firmament of the two elements, fire and air. So, then, the tree is distributed by this triple line over the universal globe, tending towards the light. So the stalk and its branches grow out from the centre of the globe until they reach the two external elements where the line ends. It does not go on to its own body, or Yliadum. For, unless the Yliadum were so placed in that position, every tree would spring right up to the sky, extending itself further outside the earth than from above, where it is fixed in the earth. So, neither do the fruits of the element of the earth grow farther than to the prescribed limit of the Yliadum, which is the lower chaos of the earth, not occupying more of the earth than the height to which growing things rise. Chaos, therefore, is twofold. That which is above is the chaos in which fire is sustained; and, unless the Yliadum were opposed, the element of earth would extend its fruits to the mid heaven. So, too, the element of water. The course and progress of the stalk of the tree is, that it goes on to its Yliadum above the plain of the earth, where its height ends. But how far it extends since it lies in its Yliadum, this must be sought from philosophy, because all the branches reach their Yliadum in the sea, where they all meet. For, as there is one root, so is it compelled to reach one summit or canopy, which is the sea. The sea itself is of itself neither the stalk nor the tree, but, as it were, the canopy of the stalk, which is not first or proximately born from the root, but composed of the branches. Why it is salt, is on account of its position and because salt waters flow together into it, as will hereafter be shewn where we speak about the subject of salts. The cause of its ebb and flow is that all the fruits (or the humours) flow down by night, but by day they swell to a height, that is, clissus. And this clissus in water is the same as in other fruits, increasing and decreasing, going and returning.

TEXT III.

Now, since it is well to know all these things, so their death, that is, their consumption, should be understood. Nothing is free from this consumption. It should be understood, then, that everything, when it comes to its Yliadum, is subject to putrefaction and is consumed. Putridity is a kind of consumption, and the passing away of that thing to which it appertains,

so that it is consumed just as if it had never existed. This is the operation of its nature. As Nature produces things, so does she again remove them. As the thing proceeds from nothing, so it returns to nothingness again. Hence it is clear that the element of water itself is subject to putrefaction or corruption. If it comes to its canopy, that is, to the sea, it grows putrid and is consumed of itself, no extraneous agency being accessory thereto, but through its own nature and arrangement. As the fire consumes and extinguishes itself, so, in like manner, does the water. This is the way, then, in which the tree of the element of water and its branches are distributed. What fruits lie hid in it remain to be seen, as also concerning their nature and the generation of the outgrowths. The nature and property of this element is that some of its fruits it bears within itself, others it casts out, and some it altogether throws away. It must also be separately learnt concerning this in how many modes of nature and essence its effluents and streams arise. But in order that all things born of water may be understood in its death, it should be realised that the branches, but not the fruits, pass away to their canopies. Concerning the death of fruits it should be said that they all flow into Drachum. In that hour they are consumed, as lastly it should be understood and held on the subject of Drachum.

TEXT IV.

By way of simplifyng any study concerning the origin of fruits, we will consider that the following are the fruits of the element of water:*—Salts, minerals, gems, and stones. There are, therefore, four kinds of growths out of the seed of the element of water, in this way. Sweet water is the stalk. Afterwards its nature is manifold in the matrix. One matrix is of salt, one of minerals, one of gems, and, lastly, one of stones.† Each of these, again, is divided in a different way. For instance, there are three fruits of salt—salt, vitriol, and alum. And each of these has many genera ranged under it. There are many kinds of salt, many of vitriol, many of alum.‡ Some are metals, some marcasites, some cachimiæ. But even these, again, singly, admit of more kinds. There are seven metals, nine marcasites, twelve

* The fruits of water are horn from the seed of Ares. Archeus, who is the separator of the elements and of all things which lie in them, divides one thing from the other, and collocates it into its place. In the seed of the element of water Archeus removes everything, and ordains it into its Nedeon, for the Yliadum of the earth, separates the germs of salt from all other natures, and in like manner the germs of sweet water and things which are of an acid quality. When he has divided these things and educed them into Nedeon, the operation of Nedeon goes on into Yliadum, together with its maturation to which it is ordained.—*De Elemento Aquæ*, s. v. *De Generibus Salium*, c. 1.

† Metals, minerals, and stones, while they are all generated out of water, do yet owe their development and perfection to the element of earth. There is a twofold corruption of these substances—one which results from a too prolonged connection with the foreign element, and the proper corruption which takes place in their own element, even as the fruit at last passes into putrefaction on its own tree.—*De Naturalibus Aquis*, Lih. III.

‡ For example, the origin of vitriol, as also of alum, is as follows. For as salt is extracted solely according to its own essence, so also are separated vitriol and alum. But the form which is manifested in salt, even as in vitriol and alum, is known from this, that all the fruits of the element of water are minerals, and share the nature of metals. But from all those things which arise out of salts, none is more akin to mineral virtue than vitriol, because the salts are minerals, and all minerals lie hidden in one mass and Ares. But vitriol is the ultimate in the separation of minerals. It is followed as closely as possible by the separation of metals, of which Venus is the first. Hence vitriol adheres to the nature of Venus. It is partly salt and partly mineral. So in every vitriol there is copper, and by reason of this

cachimiæ. So in turn every metal by itself is manifold: as fixed gold and not fixed, fixed silver and not fixed, and Venus is both copper and zinc. Such also is the case with the others. So there is a vast variety of marcasites and cachimiæ. As to their origin and progress, their autumn and the rest—as, for example, their harvest and ingathering—suffice it to say that all the fruits proceeding from the element of water are divided into their branches and trees. So salt has its own mode of egress, together with sweet waters, even to the boundary of its Yliadum. The same is the case with the rest. But with regard to their division and separation, all such fruits consist of one root, out of which each nature is separately born according to its condition. So from one seed is born one tree, and in this the wood, the bark, the fruit, the leaves are all separate, yet all are but one tree. So also from one root innumerable fruits are produced, but each fruit passes to its own Yliadum and triple line, as the founder has arranged. If, therefore, the distribution proceeds in this way, from Yle into its own stalk, and fruit is produced after its kind, then different things are found proceeding from the element of water —on one stalk salt, on a second a mineral, on a third something else. As, therefore, in the earth every seed produces its own fruit, so the seed of water is the seed of numberless things springing forth from it. Now, if these are brought to their Yliadum, and await their autumn-tide, then at length the autumn and harvest come for the fruit of every branch, which fruit is in itself of this autumn-tide and this generation.

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metallic affinity vitriolic salt is of venereal nature. Copper, in like manner, is combined with vitriol. Indeed, its generation instructs us that it is wholly vitriol. At the same time vitriol in itself remains a salt, and derives its body from the liquor of the metals. For this reason it acquires a certain fiery quality and brilliancy. Alumen, on the other hand, by no means has affinity with metals, but is a free salt, consisting solely of acetosity, and having a body which is devoid of earthy quality, unlike vitriol, which arises solely from a permixture of metallic bodies. Hence it exhibits a similitude with marcasites and cachimiæ, which come forth in the first generation of metals. The medium which unifies and conglutinates copper with vitriol is a phlegma.—*De Elemento Aquæ*, s. v. *De Generibus Salium.*

HERE ENDS THE PHILOSOPHY OF THE GENERATION OF ELEMENTS.

APPENDICES.

APPENDIX I.

[In the Geneva folio of 1658, which is by far the largest, as it is also the best, collected edition of the works of Paracelsus, there are many treatises included which conspicuously overlap each other; and further, there are many treatises, independent in themselves, which are devoted to precisely the same subjects. For example, the *Philosophia Sagax* occupies, and at equal length, a similar ground to the *Explicatio Totius Astronomiæ*, and the latter is substantially identical with another astronomical interpretation included in this translation. It is much after the same manner that the *Economy of Minerals* corresponds to the *Liber Mineralium*, but, having regard to the metallurgical importance which, from the Hermetic standpoint, attaches to both these works, it has been thought well to include in an appendix the treatise which here follows.]

A BOOK ABOUT MINERALS.

SINCE I have considered well beforehand, and come to the resolution of writing about minerals in general, all that relates to minerals, and everything bearing on the generation and nature of minerals, I would have you know before all else, that not a few persons have the priority of myself in publishing on the origin of minerals. When I read their works, I found that they were involved in many errors. As far as one can judge from their writings, they have never fully understood what the ultimate matter was. Now, if the ultimate matter be not understood, what, pray, will happen to the first matter? Whoever can describe the beginning will probably be certain about the end and ultimate. What is a theologian who is ignorant of the end? What is an astronomer who is full of boasting, indeed, but without experience of light? Since, then, these authors are detected as in a state of hallucination about the end, that is, the ultimate matter, how will they be more worthy of credit about the beginning? I repudiate their writings and their letters; this is not the foundation. But, in order that you may have proof positive in a short space as to my possessing much greater dexterity for writing about this matter than those my predecessors had, I will first of all explain to you the ultimate matter of minerals, so that you may plainly know on what basis I treat this subject, and hence may more rightly understand

what is the beginning. It is necessary that a physician should first be familiar with the disease with which he has to deal; when he knows this, the method of treatment will spontaneously unfold itself. But to know a disease is the end, not the beginning. The art resides in the departure, not in the entrance. The entrance is dark and dubious; the issue is evident. In this knowledge lies hid. I point out this, therefore, as the foundation, namely, that every matter must be thoroughly known at its commencement, so that it may also be more exactly understood for what purpose the matter has been framed. Now, if man ought to lay out before himself the works of God, and rightly use them, it is necessary that they should not be hidden from him; otherwise he will be sure to abuse them. What good is an axe to a person who is ignorant of its purpose? Let him hand it over to one who knows all about it. In the same way, whatever God has created ought to be in the hands of a man who knows how he ought to employ it. Men should know and learn these things, not mere trifles and phantoms conjured up by the devil.

But when I propose to write about the origin of minerals, I shall do this not of myself, but from my experience, and by means of him from whom I myself received it. What I said in my first paragraph, I here repeat, namely, that the last must be known before the first, and from the last the first should be understood. I make this clear from the example of Christ, who was not understood until He sent the Holy Spirit, who, at His coming, revealed all things. By Him we understand Christ, though He came after Christ. So, from the same ultimate, that is, by the Holy Spirit, we now understand both the Father and the Son.

Now this fits in exactly with the philosophy of minerals, because the ultimate matter is made up of those things which teach the beginning of their mother, or of their birth. From them this birth must be understood. Already in other philosophic paragraphs I have named these three substances, Sulphur, Salt, and Mercury, as being the principle of all those things which spring from four matrices, that is, the four elements. In the generation of minerals it is necessary to explain that iron, steel, lead, emerald, sapphire, flint, duelech, etc., are nothing else than Sulphur, Salt, and Mercury. Everything produced by Nature is frail and corruptible, and it can be ascertained by Art from what it has issued forth. And here is a proof from Nature, since those three substances just spoken of are in the air, no less than in other things, such as fire, balsam, mercury, etc. If, by the aid of Art you resolve steel, gold, pearls, or corals, you will still find Sulphur, Salt, and Mercury. When these are extracted by Art, nothing more of that mineral remains, but all is dissolved. Seeing, then, that the dissolution of substances reveals particularly what they are, and what is in them, you can gather that those things are three, namely, Sulphur, Salt, and Mercury. These three are the body, and everywhere there is one body and three substances. Concerning these three substances I will now begin my teaching, by which you may know that in the ultimate matter there are three substances, neither more nor fewer, and out of these three all

minerals have been formed. Furthermore, how God created Nature shall also be stated. On this basis nothing shall be found lacking.

In the beginning it pleased God to make one element—water—whereinto He infused the power of generating minerals, so that they might forthwith grow, and thus adapt themselves to human needs. Water, I say, He destined for this office, that it should be the Matrix of the Metals, by means of these three substances spoken of—namely, Fire, Salt, and Mercury. In this arrangement so much foresight and discrimination were observed that from the one element of water were produced metals, gems, stones, and all minerals. And though the fruit be unlike its parent, so God willed that each should be produced according to its own nature. One is a bird of the air, another a fish in the water. And just as these differ one from the other, so do the natures of other created things. All these depend on the power of God, who willed that His good pleasure should be fulfilled in them.

Now, it should first of all be realised that the element of water is the mother of all minerals, though water itself is utterly unlike these. So also is the earth related to wood, though earth is not wood. Nevertheless, wood comes from it. In the same way, stone, iron, etc., are from water. Water becomes that which of itself it is not. It becomes earth, which it is not. So is it necessary for man also to become that which he is not. Whatever is destined to pass into its ultimate matter must necessarily differ from its beginning. The beginning is of no avail.

Now, in water is the primal matter, namely, the three first substances, Fire, Salt, and Mercury. These have certain different natures in them, as will hereafter be pointed out. They have metals, they have gems, they have stones, they have flints, and many things of this kind. One is a metal, another a stone, another a flint. So in the sky, too, one is snow, another thunder, another the rainbow, another lightning. In like manner on earth, too, one thing is wood, another a herb, another a flower, and another a fungus. Such an artificer has God shewn Himself, the Master of all things, whose works no one is able to rival. He alone is in all things. He is the primal matter of all: He is the ultimate matter. He *is* all things. Then, when we come in due succession to explain minerals, we will, in the ensuing discourse, speak before all else concerning the properties of the matrix, that is, the element of water. The things whereof I write were supposed by the ancients to spring from the earth. Their meaning was good; but the position was incapable of proof. In this point they were defective, as also in the materials for establishing that proof.

The principle, then, was first of all with God, that is, the ultimate matter. He reduced this ultimate matter into primal matter. It is just in the same way as the fruit, which is to produce other fruit, has seed. The seed is in the primal matter. So in the case of minerals, the ultimate matter is reduced to the primal, as in the case of seed. The seed here is the element of water. God determined that there should be water. Then He conferred upon it, besides

this nature, that it should produce the ultimate matter, which is in water. This water He subjects to special preparation. That which is metallic He separates into metals and arranges each metal separately by itself. That which belongs to gems He also digested into its own nature. That which is stony in like manner. The same is the case with marcasites and other species.

Moreover, if God created time—harvest for the corn and autumn for the fruits—He also appointed its own special autumn for the element of water, so that there might be a certain harvest and definite autumn for all things. So, too, the water is an element, is the matrix, the seed, the root of all minerals. The Archeus is he who in Nature disposes and arranges all things therein, so that everything may be reduced to the ultimate matter of its nature. From Nature man takes these things and reduces them to their ultimate matter. That is, where Nature ends man begins. The ultimate matter of Nature is the primal matter of man. So, then, by an admirable design, God has appointed that the primal matter of Nature should be water, which is soft, gentle, and potable. Yet its offspring or fruit is hard, as metals or stones, than which nothing is harder. The very hardest, therefore, derives its origin from the very softest—the fire from the water—in a way beyond the capacity of man to grasp. But when the element of water becomes the matrix of minerals, this is not beyond the capacity of Nature. God has produced a wonderful offspring from that mother. You judge a man by his mother. Every one has his own special feelings and properties, not according to his bodily organization, but according to his nature. Thus all metals according to their body are water, but according to their special properties they are metals, stones, or marcasites. In no other way can reason grasp that these things are diverse in substance and in body.

Thus, then, God created the element of water, that it might be the element of all metals and stones; and He separated it from the other three elements into a peculiar body which was not in the air, in the earth, in the sky, but was something special, different from these. This he placed on the lower globe so that it might be above the earth and occupy the cavity in the earth where it lies. He founded it with such wonderful ingenuity that together with the earth it should carry men, who might walk and move upon it. And the first thing which moves our wonder in this respect is that it surrounds and encircles the globe and yet does not fall away from its appointed station; so that the part lying under us is turned upwards just as we are, and in the same way hangs suspended downwards. Then our wonder is increased, seeing that the bed or pit of this genuine element, at its centre of greatest depth, is quite bottomless, so that the water receives no support from the earth on which it lies; but it stands freely and firmly in itself like an egg, nor does anything fall away from the shell; and this is a clear miracle of God.

Now, in this element are the generations of all metals and stones, which

exhibit themselves under multifarious natures and forms. Moreover, as you see, all fruits grow out of the earth into the air, and none of them remain in the earth, but go out of it and separate themselves from it, so, growing out of the water, there go forth metals, salts, gems, stones, talcs, marcasites, sulphurs, etc.—all proceeding from the matrix of this element into another matrix, that is, into the earth, where the water completes its operation, but the root of minerals is in the water, as the root of trees and herbs is in the earth. But they are brought to perfection above the earth, and pass on to their ultimate matter, which is entirely in the air.

In like manner is completed on the earth that which grows in the water. So, then, when the root is in the water the growth takes place on the earth, and hence the doctrine of those writers is clearly erroneous who advance the the opinion that minerals grow out of the earth, and that all these minerals, how many soever they be, recognise the earth as their mother. This idea is worth nothing. Indeed, nothing grows from the earth save leaves, grasses, woods, herbs, and the like. Everything else is from the water. Otherwise, by the same method of reasoning, it might be said of the growing things of the earth that they grow in the air since they live in the air ; but this is clearly fallacious. Their roots are found in the earth, and hence we learn that their origin is in the earth, but their perfecting in the air. In the same way, that which originates in the water acquires its perfection in the earth. The growth of minerals follows the same course, convincing us that they are aqueous, and proceed from the water, existing in the water as the primal matter of those same minerals, just as all fruits of the earth are generated in the earth, and after the predestined period they burst forth into harvest, or autumn, and generate that which is in them. When a root of this kind is born, it first rises into its own special tree, that is, its body, from which the particular mineral, metal, or other growth, should be produced in the earth. In like manner, also, the nut or the cherry does not spring straightway out of the earth, but first of all the tree is produced, and afterwards the fruit ; so, also, in the water Nature first puts forth a tree, which is the aqueous body, and this afterwards grows out into the earth ; that is, it occupies the pores of the earth, just as the tree fills the air. When this tree is now put forth into the earth, the fruits are forthwith born, congenital with the tree, according to their nature and condition. Here the metal grows in its own special kind, there some sort of salt is produced, there again some genus of sulphur breaks forth, and elsewhere some sort of gem is protruded. And, just in the same way as many cherries or pears are found on one tree, so similar fruits of the water are found at the extremities, and, as it were, on the shoots of the trees appertaining to the element of water. Again, like as some trees put forth many fruits, and others only few, so, in this case too, there is a similar property, nature, and condition. Trees of this kind, therefore, should first be sought, and afterwards their fruits. Thus, the rustic who pursues his culture in the element of water will be taught and instructed, as the husband-

man who plies his craft in the soil is taught how he should pursue his husbandry and where fruits must be found.

Careful attention, too, should be given in this method of generation, so that the illustration from the earth may hold good—in this way: There are some trees which bear their fruit, not nakedly, but under mixed conditions. The chestnut, the nut, and other similar growths, have a bark, thorny in appearance, and inside another, while, lastly, a thin skin encloses the kernel. So, in like manner, there are metals, also, and minerals lying hid in flesh and skin, such as are the ore of iron, the ore of silver, and so on. These have to be removed in order that, after separation, the desired fruit may be extracted. On the other hand, there is another kind which puts forth its fruits nakedly, as cherries, plums, grapes. From these nothing is thrown away, but all is useful and good. So in the aqueous fountain are found pure and naked silver, gold, coral, carabe, and the like. These are all so arranged by Nature that there may be different sorts of trees and of barks, in which the mineral lies, which also depend upon the variety and division of water, climate, and geographical position. That which lies hid within has to be extracted from the bark or shell, just as in the case of fruits. And yet further, as you see in the kernel a body and the kernel itself, so be well assured that, similarly, in the element itself there is a body and a spirit, so that the body has first to be sought for, and then the spirit in the body. Now, it is the spirit that makes the body, and so it makes also the mineral (or the nutriment). The mineral has one body, the fruit another. That is the same as saying that, although there may be gold in a body, and the body is worthless, because impure, and it must be separated by the goldsmith, so gold has a body which is not impure. There are two bodies. In the second is incorporated the fruit of the mineral, which need not be separated from that gold. So then the fruits are first developed out of the element into a tree, afterwards into a body, and within the first shell that which is precious and good. Just as man is a twofold body, a dense body which is worthless, and within this another body which is good, so is it with all growths. Whatever God has created He perfects its corporality by a similar process. He has made man in one way, a tree in another, and a stone in another. But He made man more carefully, because He would that man should be created in His own likeness, so that eternity, in which other created things have no share, might reside in man.

The same judgment is to be passed concerning the death of elements, because water has its own death no less than other things. Indeed, water is its own death, eating into, strangling, and consuming its own growth. We have proof of this in the earth. That which grows from it returns to it and perishes, so that no part of it any longer survives. So yesterday perishes and no man will ever see it again, and it is in like manner with the night past. In like manner also pass away all things born of the earth, which return to the earth, and are consumed by it, and yet it is not heavier by half an ounce then it was yesterday, nor is it heavier to-day than it was a thousand years ago.

Its weight remains one and the same. God has gifted His elements with this peculiarity, that they should give fruits and consume their superfluities, but whither those superfluities have gone no man knows, any more than he knows whither yesterday has gone. In like manner, the element of water is its own death, inasmuch as it consumes and mortifies its own fruits. That death is in the great centre and terminus of water, the open sea, into which all water flows. Whatever passes hereinto dies and decays, passing away even as wood is consumed in the fire. And as, year by year, new fruits emerge from the earth, while the old ones perish, so, every day new minerals are begotten, be they metals, marcasites, gems, stones, salts, or springs. These all come forth girt about with death, as an infant who brings along with it death bound up with life. By the same method of reasoning, metals, too, bring with their own beginning their own death too, and they die in the terminus of the water, that is, in the open sea. The Rhine, the Danube, the Elbe, and other rivers are not the element itself; they are its fruits. The element is in the open sea. It is that out of which all grow and into which all must perforce return, and thus they acquire death whence life is allotted to them This death will be more fully described hereafter in distinct paragraphs, when it is pointed out separately how each mineral comes into being and dies.

Now, with regard to the tree of the element of water, mark this. When Nature is about to put forth any growth into the world—be it gold, silver, copper; be it gem, emerald, sapphire, granate; be it a spring, sweet or brackish, warm or cold; be it coral or marcasite—she then raises up, from the element of water, a tree on the earth, so that its root is fixed in the centre of the sea (or of the matrix). That tree sends forth its seed into the earth, and spreads forth its branches. Know, therefore, that its stock has the form of a liquid, which is not water, oil, bitumen, or mucilage. It has the appearance of wood produced from the earth, but still it is not wood, nor seed (or stock) and yet it is of the earth, and each has its own body. That liquid is the stock, and its branches are that same liquid, just as a tree is wood, and its branches are like in kind. So, then, the mineral tree is formed into a body of this kind, and afterwards divided into its ramifications, so that one branch very often extends from another into a second or third, running out and separately extending itself to a space of twenty, forty, or sixty miles. One branch turns to the German Alps, another to Lungia, another to the Valley of Joachim, and another to Transylvania. Such is its distribution throughout the whole world. In this way innumerable trees are interwoven, wherever the earth extends. As trees grow forth in this fashion, one after another on all sides, their extremities extend to the uttermost parts of the earth. Sometimes they crop up to the surface of plains under the open sky; sometimes they remain in the earth according to the nature and condition which is special to each tree. Hence it follows that at the extremities of the branches the nature of the element of water pours forth its fruits on the earth. As soon as ever these fruits drop on the earth they are at once coagu-

lated, and there is produced from every such tree just what should be produced in proper kind and quantity. When its fruit has been completely shed, that tree withers and dies within itself. It perishes like all other things, and itself passes on to the consummation where all things find their end; while, lastly, according to its nature, a new growth emerges thence.

From this you may learn that the primal matters of all minerals are put together in water, and that this primal matter is neither more nor less than Sulphur, Salt, and Mercury, which are now made the soul, spirit, and true essence of the element. These three substances contain within them all metals, salts, gems, and the like. And when, at the predestined period, it is about to beget those fruits which it cannot help producing, then each genus and species gives birth to that which is like itself. Thus, if any person had different seeds, as many as ever the world produces, mixed together in a bag, and if he were to cast these forth, or to sow them in a garden, Nature, being equal to the occasion, would by-and-by allot to each its own fruit, bringing every separate seed to its own vigour and perfection without injury to the others. Exactly the same is it with the element of water, as though this were the bag filled with seeds of all kinds to be sown. Here, too, every genus and species is brought to its own nature and perfection. God, according to His marvellous plan, has gifted the four elements with these miracles of creation. These are the elements from which issue forth fruits destined for the service of man. Every different kind has been created by God. By such investigations as these the mighty works of God are explored and understood.

Surely, therefore, that philosophy is worthy of all praise which puts forward only the works of God for our consideration. Every man is bound to learn all he can about these, so that he may know what, and how much, his Creator has done for his sake.

True, the enemy has intruded and sown his tares in this philosophy. Such as this are Aristotle, Albertus, and Avicenna, with their accomplices, who are mere tares of the field. That enemy bursting in has devastated everything and begotten other noxious philosophers whose system is destitute of all knowledge of Nature, and is without any foundation at all. Lacking all light of experience, such philosophy violates in the most disgraceful way the light of Nature. Its professors are the busy-bodies who, mixing themselves up with all good things, exhibit themselves to the devil as sons of perdition.

So far, you have heard that the primal matter is conjoined in the matrix as in a bag, being compounded of three parts. As many as are the fruits, so many are the different kinds of Sulphur, Salt, and Mercury. There is one kind of Sulphur in gold, another in silver, another in iron, another in lead, tin, and so on. So, there is one kind in the sapphire, another in the emerald, another in the ruby, crysolite, amethyst, magnet, etc. Furthermore, there is a different kind in stones, flint, salts, fountains, and the rest. And there are not only so many Sulphurs, but so many Salts. There is one Salt in metals, another in gems, another in stones, another in salts, another in vitriol, another

in alum. Such, too, is the case with Mercury. There is one kind in metals, another in gems, and so on as before. Yet these things are still only three. One essence is Sulphur, one Salt, one Mercury. Add to this, that all these are still more specially divided. Gold is not one but manifold, as also a pear, an apple, is not one but manifold. There are, therefore, just as many Sulphurs of gold, Salts of gold, Mercuries of gold. The same remark applies to metals and gems. As many sapphires as there are, some more valuable, others more common, so many Sulphurs of sapphire, Salts of sapphire, and Mercuries of sapphire are there. The same is true of turquoise and all other gems. All these things Nature holds, as it were, as in one closed hand, from which she puts forth every separate kind, the best and noblest that she has. Thus, she contributes metals to one genus, and divides that genus into other and various species, all comprising metals. In this way the three primals are to be understood, namely, that they embrace as many created species as grow ; and yet they are only composed of one Sulphur, one Salt, and one Mercury. As a painter with one colour depicts numberless figures and forms, no one of which is like another, so Nature is like that painter. In this alone they differ; Nature produces these things with life, while the painter produces only dead ones. Nature's productions are substantial ; the painter's are mere shadows.

Then again, the reasoning about colours leads to a similar conclusion. On that head, notice this brief information, that all colours proceed from Salt. Salt gives colour, gives balsam and coagulation. Sulphur gives body, substance, and build. Mercury gives virtues, power, and arcana. So these three ought to be combined, nor can one exist without the other. God gives life to those whom He has predestined to derive it from these as it has seemed good to Him. Now Nature herself extracts the colours from the Salt, giving to each species that colour which is suitable. The body which is appropriate to each it takes from Sulphur. Thus, too, the necessary virtues are derived from Mercury. So, then, whoever wishes to learn the bodies of all things must before all else make himself acquainted with Sulphur. Again, he who desires to know colours must seek his knowledge from Salt. He who wishes to learn virtues let him scrutinise the secrets of Mercury. So he will have laid the foundation for examining the mysteries of every growing thing as Nature has infused these mysteries into each separate species. But you should know that Nature has mixed up such bodies, colours, virtues, one with the other ; yet with a little effort it is possible for any one who will, and to whom God gives the power, again to separate them, to form, colour, and endow them. You see and know how it wakens our wonder when from a dusky black seed emerges a tree adorned with its bright and joyous colours, with leaves, fruits, and flowers. This mystery of Nature, as it exists in flowers, is so sublime and great that no one can fully investigate it. God is very much to be admired in His works, and from the contemplation of these one ought not to withdraw by night or day, but constantly to take delight in the study of them. This is in the truest sense to walk in the ways of God.

Moreover, it will be in consonance with my subject, and of practical use as well, if I advise you in one course of the order observed in this book about minerals. This order is different to that which has been pursued by others. First the metals will be treated, and these are not of one kind but distributed according to their own essences and also according to the uses which they supply for men. Some of these are fragile, others durable, and in proportion they are subservient to human convenience. So, also, some gems are useful to man not in their metallic form, but in order that they may be worn, or minister to human health. Such as these are the sapphire, the magnet, the cornelian, etc., These are created in a special form, so that a man may be able easily to carry them about with him. Then, again, there is another kind of stones which man does not use as he uses a metal or a gem, but which he employs for building houses or other receptacles necessary for human life. Further still, another genus is composed of Salts, of more than one species, which are neither metals, nor gems, nor stones, which also are useful for purposes which are subserved neither by metals, gems, nor stones. Moreover, a special order has been assigned to springs, some of which do good to the internal organs of the body, others help it externally. Some are warm and others cold, some acid whilst others are sweet. There are so many different species that one could not exhaustively define them. There are also different kinds of marcasites, two, for example, coloured like gold and silver. But there are very many species in which God has held several things in reserve, which also are put in man's hand that he may seek what he will, and extract from them whatever God has conferred upon them. There are also things that belong to a different genus; talc, of which there are four sorts, red, white, black, and clay-coloured. This genus comprises neither metals, gems, stones, salts, springs, nor marcasites, but something special and by itself. It gives also sand, with a supply of silver. Of this more need not be said than that it is useful for buildings and for making cements. There is also another genus given to us, namely, sulphureous minerals, of which there are two, the clay-coloured and the black; and there are also carabæ.

There are more of this nature, and especially one genus which is allied to no other, in which the health of men is to be found, and it can also be applied to external uses. Besides this there is another genus not like the above-mentioned, namely, corals. Of these the red and the white are well known. Other colours are also found, and forms such as are described in the paragraphs devoted to the subject. Moreover, after these there remains another genus, beyond what is natural, which, by the will of Nature, becomes an instrument of various forms and properties, as the eagle-stone and the buccinæ, cockles, patellæ, etc. The origin of these from the element of the water, you can find in my succeeding paragraph. From the element of water, too, many kinds of fruits are produced; and though I shall only describe those which are known to me, I have found out much more, because the lower globe and the higher sphere, in all their parts, above, below, and on every

side, are crammed with such as have been mentioned. I should, therefore, be fully competent to write about these. But still it is true that many are hidden in the world about which I know nothing. Yet neither do others know them. It is, indeed, true that many and various things are about to be revealed by God, concerning which none of us has hitherto even dreamed. For it is true that nothing is so occult that it shall not at length be made manifest. Some one will come after me whose great gift does not yet exist, and he will manifest this.

You should know, however, that there are three parts in this Art, to which the perfections of minerals are compared. These three artifices in the nature of the element are congenital with the three primals. For as man has his gifts in the arts, by which he excels, so also Art affords to them in the matter of the three primals. And it should next be understood that no man can bring to perfection any thing or any work by himself, without some one to help him. No one is superior to another save that man alone who knows how to conjoin what should be conjoined. Iron ore, for example, is ready to hand. But what can it do of itself? Nothing, unless there be added one who will fuse and prepare it. Secondly, this is nothing without a smith to forge it. This, again, is of no practical use unless there be someone to buy it and to apply it to its purposes. Such is the condition of all things. The same thing likewise occurs in Nature, where it is not one thing only which makes a mineral. Others must be added, analogous to the fuser, buyer, seller, and user. If Nature does not supply this work, she deputes it to man, as the primal matter whose duty it is to supply what is lacking. Nature, nevertheless, has need of a dispenser, who will arrange and set in order what ought to be joined together, so that what should be done may find accomplishment. One is ordained by God for this conjunction, and that is the Archeus of Nature. He afterwards requires his operatives to co-operate with him, to fashion the thing, and bring it into that condition for which it is appointed. Hence it follows that three things must be taken which reduce every mineral to its appointed end. These are Sulphur, Salt, and Mercury. Those three perfect all things. First of all there is need of a body in which the fabrication shall be begun. This is Sulphur. Then there is necessary a property or virtue. This is Mercury. Lastly, there is required compaction, congelation, unification. This is Salt. Thus at last the thing is brought about as it should be. But it is not every Sulphur which is a body for gold, nor every Mercury for its virtue, nor every Salt for its unification ; but just as there are many blacksmiths, one doing this thing, another that, so also here. God, therefore, has appointed that the Archeus should set in order those things which are to be conjoined, just as a baker, cooking bread, joins together what has to be joined, or a vine-dresser seeks out and joins what has to be joined for the purpose of cultivating his vineyard. Everything is appointed to its own purpose, and everything finds out what is necessary for its own special purpose. Now, if the Archeus has his lead ore, and it be necessary to form a tree in gold, iron, jacinth,

granate, duelech, marble, sand, cachimia, or what not, then he takes and combines the three simples, Sulphur, Salt, and Mercury, which are of this nature, and do serve his purpose. Afterwards he casts them into his Athanor, where they are decocted, as seed in the earth. They are decocted again in such a way that Sulphur may add its body, in which the operation consists. They prepare it according to their judgment for that which it ought to be or to become. Next, out of the other two Mercury is decocted for its properties, so that those may be present which ought so to be. When these decoctions have been made, there follows, lastly, conservation, which is brought about by means of Salt. In this way all is coagulated ; that is, the Salt first unifies, next congeals, and lastly, coagulates. Now it is strengthened, so that already the autumn is ready and he is at hand who is to beat out the metal. Let this brief account suffice for every generation of metals, namely, in what way they are conjoined. Concerning each one separately, how it is to be dealt with, instruction shall be given in the particular chapter. And this teaching, indeed, concerning minerals is necessary in order that everything may be more rightly and plainly understood, and that you may not be led away by the deceits of the old writers and their followers. They are puffed up with vast self-esteem, and are only approved by those like them, who are as unskilful as themselves, but do not take their ease quite so much, hoping that they may search into and gather these things by more exact study.

II.

Concerning the generation of metals, you may be assured that there is a great number and vast variety of them. A metal is that which fire can subdue, and out of which the artisan can make some instrument. Of this class are gold, silver, iron, copper, lead, tin. These are called metals by every one. But there are also, besides these, certain metals which are not reckoned as metals, either in the writings and philosophy of the ancients nor by the common people, and yet they are metals. To these belong zinc and cobalt (which are subdued and forged by force of fire), as also certain granates (accustomed to be so called) of which there are many kinds, themselves also metals. But many more are those which up to this time are not as yet known to me, as are many different sorts of marcasites, bismuths, and other cachimiæ, which produce metals, but of kinds not yet known. Only the principal ones are known, which are more ready and convenient for use, such as gold, silver, iron, copper, tin, lead. The rest are pretty completely neglected, and nobody cares about their properties—neither the smith nor the ironworker, the tinman, brazier, or goldsmith. Nevertheless, these metals are for other operators, not yet born. No one is competent to learn save in one way and by a single art. The assertion that quicksilver is a metal has no truth in it. It belongs to another class of minerals ; not being a metal, a stone, a marcasite, or a sapphire, etc. It is a peculiar growth of Nature, gifted with its own body like the rest, and provided with its pro-

perties. The custom is passing away, too, of arranging seven metals for the seven planets. From this it arose that, not having full knowledge of metals, people reckoned quicksilver as one of them. According to their comparison of things, gold is Sol, silver is Luna, copper is Venus, lead Saturn, and tin Jupiter. But come, arrange these things. If you join Venus and copper you will soon see how they square and agree with one another. Join and compare lead with Saturn, and notice what happens. Compare tin and Jupiter, and see what fruit will arise. Such philosophy is nothing but rubbish and confusion. Not the slightest vestige of any foundation or light appears in it. Such remarks are merely barbarous, and not philosophy at all. Of the same kind is the assertion that quicksilver is Mercury. Compare the complexion, nature, working, quality, properties, and various virtues and essences, and see how they square one with another and agree. They are quite incongruous. One has not the least likeness to the other. It is true that the Philosophy of Plants has arranged seven herbs according to the seven planets ; but these are the mere dreams of physicians, with no stability or power of proof in them. According to them, mercurialis is Mercury, heliotrope Sol, and lunaria Luna. But do you think – you "Fathers"—that you can fly away to the sky and have the power of comparing earth with heaven without any astronomy or philosophy, when you cannot even get a glimpse of what lies hid in so common a growth as the heliotrope? This distribution, therefore, should be admitted by nobody, but ought to be relegated to those who do not judge according to the light of Nature, but by their own long stoles. The chapter on metals teaches you that those metals are six in number, so far as they are known to me, and I have given them above. To these are added a few others —some three or four – which are known to me, and the number and species whereof shall be given in due course. I think it very likely that a large number still remain. For by provings of the metals, many proofs present themselves which are metallic, that is, they are reckoned according to the nature of the six metals, though they do not altogether agree thereto; so that I should augur from this that a great number of metals still remain. Every mineral can be thoroughly known and discriminated if subjected to a sufficient examination.

With regard to the generation of Gold, the true opinion is that it is Sulphur sublimated to the highest degree by Nature, and purged from all dregs, blackness, and filth whatever, so transparent and lustrous (if one may say so) as no other of the metals can be, with a higher and more exalted body. Sulphur, one of the three primals, is the first matter of gold. If Alchemists could find and obtain this Sulphur, such as it is in the auriferous tree at its roots in the mountains, it would certainly be the cause of effusive joy on their part. This is the Sulphur of the Philosophers, from which gold is produced, not that other Sulphur from which come iron, copper, etc. This is a little bit of their universality. Moreover, Mercury, separated to the highest degree, according to metallic nature, and free from all earthly and accidental

admixtures, is changed into a mercurial body with consummate clearness. This is the Mercury of the Philosophers which generates gold, and is the second part of the primal matter. The third part of the primal matter of gold, or of the tree from which gold ought to grow, as a rose from a rose-seed, is salt, crystallized to the highest degree, and so highly separated and purified from all its acridity, bitterness, acetosity, aluminous, and vitriolic character, that it no longer has anything of the kind appertaining to it, but is carefully illuminated in itself to the very supreme point, and advanced to the highest transparency of the beryl. These three ingredients in conjunction are gold, which is decocted in the way of which we have already spoken.

Moreover, the genus of gold is not single, but manifold. Its grade is not one only, but Nature of herself gives thirty-two degrees to the finest gold. In our Art, twenty-four degrees are found for establishing the best gold. The cause of this is that gold in its tree is like a cow in the pastures, or like Epicurus in the kitchen. As soon as he has gone out all vigour and animation become fallen and diminished. So is it with gold : because if it be reduced so as to be the first matter of man, then, as if gone out of its kitchen, it at once loses eight out of the thirty-two degrees to which allusion has been made. But there are diversities in the kitchens, too, some being better and others worse. Accordingly as the gold falls into this one or the other, so it is either increased or diminished in degrees from twenty-six degrees as a maximum down to ten degrees as a minimum. The grades below this are too pale and not recognisable. For it is the nature of gold to be either light or dense. This happens from some impediment which occurs from the stars or other elements which aid in the decoction. As one man is more dense or more subtle than another, so neither does gold always attain its complete grade, principally for this reason that too much body, or Salt, or Mercury, has been added, from which fault and error are sure to arise. Too much Salt causes too great paleness. Too much Mercury makes the gold too much the colour of corn. Too much Sulphur confers excessive redness. And it must be remembered, too, that sometimes the weights are unequally divided. Nature sometimes errs as well as men. If this happens, the grade is unequal. It reaches a point from twelve to twenty-four. But if the superfluous weight be removed (as it can be by Art), say, by antimony, by quarta, as it is called, by regal cement, or by other means, the irrelevant weights are removed and the twenty-four degrees remain. Let not the Alchemist, then, attempt rashly to graduate gold, which is done in this way. For the weight in excess is unfit to assume its degree and to be reduced to a just standard. But what is not good of its kind cannot be exalted. Yet it may be that gold which is too pallid in its decoction may be graduated. But a principal item of knowledge with regard to this is that it does not lose its body in regale, antimony, and quarta. Indeed, it persistently retains both its colour and its weight. This is a property of good gold.

Gold becomes white by Sulphur in the manner already detailed. But the other two, Mercury and Salt, are white, and of a golden nature. These so tinge a sulphurous body that it loses its redness and grows white. Sulphur takes the tint of other colours. For though the whole be red, or white, or clay-coloured, its colour is changed by the tincture which is composed of Mercury and Salt. When, therefore, the body is Sulphur, the tincture of Alchemy can easily change its colour. It is necessary, however, in this case, that the other tincture, the Alchemical to wit, should tinge the Mercury and Salt from whiteness to redness. In this way gold assumes the colour which it ought to have. And it should be realised that there are complexions in gold and in other metals, just as there are in man himself.

Another fact which should be accepted is that the white complexion also is changed by corporal transmutation. So also is redness. These two colours separately inhere in redness. Yellowness inheres in whiteness; and these are subject to the primary colours. This transmutation can be effected by means of Alchemy, but under the condition that it shall be directed to the complexions, and that it shall first of all be tested in man, so that one shall be made of a melancholy or a sanguine temperament, just as cattle may be made black or white, and that by a tincture. Nature, indeed, in her mineral working, acts exactly as she does with man in his generation. In the same way man also ought to act in the generation of Nature, as being superior to Nature in this respect, if only Nature has gifted him with the astral mysteries of the arts. This method of treatment, however, I now relegate to astronomy.

Attention also must be paid to the fact that at this juncture Nature takes the lead in matters of the kind described. In Sulphur there is nothing save a body, in Salt nothing, only in Mercury. Sulphur and Salt are so far available that the one gives the body in which is gold, the other adds strength. In what relates to the nature, force, and virtue, all this is due to Mercury. Whatever property there is in Sulphur belongs to all alike. There is nothing in it except body where Mercury is not present. So in Salt. But know that Salt is a balsam, and conserves Mercury so that its virtues and properties shall not putrefy or decay. Thus, this virtue is incorporated with gold, and if it be separated after coagulation in Salt it cannot be detected by Art, as neither can the properties of Sulphur be discovered. But all these are readily found in Mercury. So when Art separates, it deserts the body, nor takes any heed of its medicine. In like manner, it deserts Salt, together with its medicine. And although the body has some influence as a body, and Salt as Salt, still, these medicines must not be sought therein, but only in Mercury, which contains all things. For this is the *rationale* of creation, that in all the outgrowths from the four elements of Nature, not only are those things present which are of themselves seen and understood, but these also contain within them the magnet which, in decoction and preparation, attracts to itself the essences of the three primals, that is, the Quintessence, as the ancients term it, though they ought rather to call it the quart-essence. For the mineral

consists of three; and besides these there is the magnet, which is a medicine. The magnet has attracted this and it is found in Mercury. But Mercury itself, too, in its ultimate separation, loses much of its weight.

When Nature is thus prepared and lead to such increase, at first the gold becomes a tree after its kind. This spreads itself, and afterwards are generated the branches. The flower follows; then the fruit. The flower in the earth, like that in any other tree, is at the extremity. And as the flower is at the extremity, and the nucleus too, while yet immature, so there is the same method observable in the generation of gold and of all metals. When the flower falls the fruit is born in its place. This, it is true, does not always burst forth where the flower had stood, but this is the nature of the auriferous tree, that the fruit flourishes sometimes at the distance of several hundred ells in the interior of the tree itself, some straightway in the open air, and others midway between the two. There is thus some difference amongst auriferous trees, the natures of which vary one from the other. Hence they are found distributed in different ways, just as their own peculiar mode of growth is assigned by God to other trees.

Besides, with regard to gold, this fact also deserves to be well weighed, namely, that it is sometimes overloaded with impediments, so that occasionally nothing takes place except a generation of Mercury. If this takes place, it leads one astray. If corrosive salts fall on the flowers, they are eaten away, just as the actual flowers on trees are eaten by worms. The gold, too, is chilled by Mercury or burnt by Salts. There are many mishaps of this kind. The earth, and the firmament, and the air may destroy it. Unless these are fruitful they bring forth no good. As trees are burnt up by a blazing sun, so here also it takes place in the water. The light of philosophy teaches us all these matters, and they are abundantly established by experience. The minerals of gold, therefore, and others, are forced to submit to hindrances of this kind. There is nothing in existence which is not occasionally shaken with its tempests. But there are other impediments which are wont to effect the degree. Of this class are cachimiæ, resins, and other marcasites, which insinuate themselves into the workings, and send forth their tinctures. All these are rejected in the Art.

Concerning Silver.

Silver is generated from white Sulphur, Salt, and Mercury, which, being most subtly prepared and rendered transparent, have been restored to a fixed nature, that is, they are fixed from their special nature nearest to gold in a fire of ashes, but not with antimony, regale, and quarta. Here is the difference in fixation between gold and silver, in this respect, that gold is male and possesses masculine virtues, while silver is female and is possessed of feminine virtues. Herein lies the difference between the fixation of gold and of silver. Since gold is male it can bear more fixation, but silver less. Thus the matter of silver is comprised in its primals, as is the case with a woman. Gold

and silver, indeed, are of one and the same primal matter; but the same distinction supervenes as exists between a man and a woman.

Concerning Jove.

Of the generation of Jove it should be known that it is produced from fixed white Sulphur, fixed Salt, and from Mercury that is not fixed; and for this reason, because Jupiter is fixed according to body, but not in the substance of Mercury. It loses all its fusion and malleability. Afterwards it ceases to be a metal; for the metallic spirit is separated therefrom by Art. As soon as ever this has been done, it is nothing else but white Sulphur, and Salt, and dried Mercury.

Concerning Saturn.

Saturn is born from a black, sulphurous, and dense body beyond all other metals. On account of its density it consists of the thickest Mercury and the most fluid Salt, so that there is received into Saturn the most fluid body of Sulphur, Salt, and Mercury. These same, moreover, are the three most dense natures of all the metals. If this metal be dissolved and ceases to be lead, it becomes ceruse, spirit of Saturn, lead ochre, and finally glass. It consists of three colours, the lemon colour it gets from Sulphur, and the white from Mercury. It gets its spirit from Salt, and from all together its vitreous nature, just as all the metals have.

Concerning Iron and Steel.

On the other hand, iron is generated from the least fluid Sulphur, Salt, and Mercury, being the very opposite of tin and lead. It is coagulated into a hard metal, and copulated in itself. For two metals are joined together in one, iron and steel. Iron is feminine and steel masculine. This conjugation resembles that of gold and silver, that is to say, the male and female grow together. They can, therefore, be in their turn separated, the female to her sex, the male to his. The female can be applied to her uses, and the male to his in like manner.

Concerning Venus.

Copper is generated from purple Sulphur, red Salt, and yellow Mercury. If these three colours be mixed with one another, copper is produced. Now, copper contains within itself its own female element, that is, its scoriæ. If these are separated by Art, and the body reduced, it comes out male. The nature of each constituent is such that the male does not suffer itself to be again destroyed, and the female no longer emits scoriæ. They differ from one another in fluxibility and malleability, as iron and steel differ. If that separation be made, and each consigned to its own nature, two metals are produced, differing altogether in essence, species, and properties.

Note.

Such and so many in number are the metals, as I have reckoned them up, namely, gold, silver, tin, lead, iron, steel, female copper, and male

copper. Thus they are eight in number. But if—as cannot be the case—iron and steel, and male and female copper respectively, are reckoned each as one metal, there would be only six, and the arrangement would be inconvenient. There are seven well-defined and publicly known metals: gold, silver, tin, lead, iron, steel, and copper, the last being reckoned as one metal, since the male and female are wrought together and not separated, as they ought to be.

Of Mixed Metals.

You perceive, from what has been already said, that the male is not always solitary without a consort, but often they co-exist, as in the cases of gold and silver, iron and steel, which grow together in one working, from which each retains its own special nature, but still they are mixed so that one does not impede the other, nor are they of their own accord separated one from the other. Such, too, is often the case with tin and lead. But where they are thus joined no good result ensues from them. They do not square into one body; but it is better that each should be separated into its own body.

Concerning Spurious Metals.

Metals can be adulterated. Only gold and silver mix with the other metals, for the reason that they are the most subtle. Only, therefore, when such a primal matter is present, does each grow up together by itself. It may easily be that six or seven different fruits shall be grafted together on the same tree; and there is the same marvellous kind of implantation here in Nature.

Concerning Zinc.

Moreover, there is a certain metal, not commonly known, called zinc. It is of peculiar nature and origin. Many metals are adulterated in it. The metal of itself is fluid, because it is generated from three fluid primals. It does not admit of hammering, only of fusion. Its colours are different from other colours, so that it resembles no other metals in the condition of growth. Such, I say, is this metal that its ultimate matter, to me at least, is not yet fully known. It does not admit of admixture; nor does it allow the fabrications of other metals. It stands alone by itself.

Concerning Cobalt.

Moreover, another metal is produced from cobalt. It is fluid like zinc, with a peculiar black colour, beyond that of lead and iron, possessing no brightness or metallic sparkle. It is capable of being wrought, and is malleable, but not to such an extent as to fit it for practical use. The ultimate matter of this substance has not as yet been discovered, nor its method of preparation. There is little doubt that the male and female elements are joined in its constitution, as in the case of iron and steel. They are not capable of being wrought, but remain such as they are, until Art shall discover the process for separating them.

Concerning Granates.

Besides these, there is another peculiar metal which is found in streams and marshes, in the form of a seed like a large or small bean. It is founded and wrought by itself, but not so as to fit it for making instruments. It is of no practical use, nor is it known what properties it comprises. Unless Alchemy shall disclose its nature, it is not likely to be made clear at all. It allows many mixtures of silver and gold, which penetrate it as they do copper or lead. It is produced from citron-coloured Sulphur.

Note.—Concerning Gems.

There are other transparent granates in the form of crystal, wherein are latent both silver and gold.

Concerning Quicksilver.

There is, moreover, a certain genus which is neither hammered nor founded; and it is a mineral water of metals. As water is to other substances, so is this with reference to metals. So far it should be a metal as Alchemy reduces it to malleability and capacity of being wrought. Commonly it has no consistence, but sometimes it has. The right opinion about it is that it is the primal matter of the Alchemists, who know how to get from it silver, gold, copper, etc., as the event proves. Possibly also tin, lead, and iron can be made from it. Its nature is manifold and marvellous, and can only be studied with great toil and constant application. This, at all events, is clear, that it is the primal matter of the Alchemists in generating metals, and, moreover, a remarkable medicine. It is produced from Sulphur, Mercury, and Salt, with this remarkable nature that it is a fluid, but does not moisten, and runs about, though it has no feet. It is the heaviest of all the metals.

Note.

So far, then, all the metals have been thus described, up to the point that they are known to me, according to their substance and origin, following that guide, and based upon that foundation, which is supplied by the ultimate matter. By means of this the first three are found out, what is their species, and whence they are derived. Indeed, the generation of the others cannot be explained in any way save by experience, which is finally proved by the primal matter in Vulcan. In this way none can err.

Concerning Cachimiæ, that is, the Three Imperfect Bodies.

Attention should be paid to a certain genus of minerals which is, indeed, of a metallic nature, but is not a metal. The things which belong to this genus possess peculiar qualities, of which I shall give several instances. For example, all marchasites, which are multifold, red and white, as also pyrites, which are also multifold, white and red, and of another genus than marchasites. There are, moreover, the genera of antimony, which are many, perfect and imperfect; next the varieties of arsenicalia. To these also pertain

talcs, auripigments, and many cachimiæ of this kind, which differ with the regions in which they are found. Concerning these we must set down that they are to a certain extent metallic, in that they have a proximate metallic first matter, and descend from the first three metallic principles. Metals such as gold, silver, copper, lead, etc., are incorporated with them. But because they incorporate also a metallic foe, nothing can be extracted from them without alchemy; but these same foes are of great capacity. These are generated in the following order: Marchasites, pyrites, antimonies, cobalts, talcs, auripigments, sulphurs, arsenicalia. I am acquainted with all of these.

General Recapitulation concerning Generation.

This chapter and text is entitled Concerning the Three Imperfect Bodies for this reason, that it is concerned with a metallic growth which bears the same relation to metals as tumourous fleshly excrescences bear to natural flesh, as the fungus bears to the herb, or the ape to the man. Of these things some are in the body of sulphur, as marcasites, pyrites, cobalts; others are in the body of mercury, as antimony, arsenicalia, and auripigment; yet others are in salt, as talc.

Of the Generation of Marcasites.

Marcasite is of two colours, citrine and white, metallic and brilliant. It is generated from imperfect metallic sulphur, which is destined to become marcasite by a natural necessity.

At the conclusion of the Book about Minerals *there follows in the Geneva folio a brief fragment which is concerned with the three prime principles in their connection with man. It is entitled an*

Autograph Schedule by Paracelsus.

There are, then, in human beings only seven planets; four of which are bodies *per se*, not forming part of anything else. There are also other minerals, those of the three primals to wit, which come from Sulphur, Mercury, and Salt, and are specially called mineral, because they are either themselves minerals or form parts of minerals. There are two minerals, and several parts, which enter partially into their composition. Gold, for instance, bears with it three parts, Salt, Sulphur, and Mercury; and all species comprised under minerals are made up of these three parts. Every planet has a perfect Yliadus. The other parts have not the same, as, for instance, sal gemmæ, forming a species, not a part; a marcasite is a species, cachimiæ is a species. But spirits have species in them, as the salt of a gem has Arsenic, fixed Sulphur, and liquid Mercury. The Yliadus, however, differs from the former Yliadus, because the former has his substance and mineral perfect. Minerals have such species; not a manifest body as planets have. Wherefore the Yliadus is to be understood in a twofold sense, one referring to the body, and one to the spirits. The corporal Yliadus is partaker with the spirits of the Yliadus; but the spiritual is not partaker with the former.

APPENDIX II.

[The alchemical importance which attaches to a proper conception of the four so-called elementary substances is explained in a note appended to the Philosophy of Paracelsus Concerning the Generation of Elements. The origin, nature, and operation of the three prime principles are, however, of no less moment. As these principles are evidently to be distinguished from salt, sulphur, and mercury of the vulgar kind, it is requisite to accentuate the distinction by contrasting at some length the references to the principles which are contained in the text of the present volume with the knowledge exhibited by Paracelsus on the subject of ordinary salt, sulphur, and mercury. The treatise concerning the first of these substances, which has been here selected for translation, is derived from a collection entitled *De Naturalibus Rebus*, which will be found in the second volume of the Geneva folio.]

CONCERNING SALT AND SUBSTANCES COMPREHENDED UNDER SALT.

GOD has driven and reduced man to such a pitch of necessity and want that he is unable in any way to live without salt, but has most urgent need thereof for his food and eatables. This is man's need and condition of compulsion. The causes of this compulsion I will briefly explain.

Man consists of three things: sulphur, mercury, and salt. Of these consists also whatever anywhere exists, and of neither more nor fewer constituents. These are the body of every single thing, whether endowed with sense or deprived thereof. Now, since man is divided into species, he is therefore subject to decay, nor can he escape it except in so far as God has endowed him with a congenital balsam which also itself consists of three ingredients. This is salt, preserving man from decay; where salt is deficient, there that part which is without salt decays. For as the flesh of cattle which is salted is made free from decay, so also salt naturally infused into us by God preserves our body from putrefaction. Let that theory stand, then, that man consists of three bodies, and that one of these is salt, as the conservative element which prevents the body born with it from decaying. As, therefore, all created things, all substances, consist of these three, it is necessary that

they should be sustained and conserved by their nutriments each according to its kind. Hence, also, it is necessary that all growths of the earth should gather their nutriment from those three things of which they consist. If they do not, it is inevitable that these first creations perish and die in their three species. These nutriments are earth and rain, that is, liquid. Herein there are threefold nutriments. In sulphur is its own sulphur, in mercury its own mercury, and in salt its own salt. Nature contains all these things in one. So from this liquid, which is the nutriment of natural things, natural salt is decocted.

Hence by parity of reasoning it is clear that man himself also must be nourished in the same way: that is to say, that his sulphur must receive nutrimental sulphur, mercury its nutrimental mercury, and the congenital salt its nutrimental salt, whereby, from these three, man may be sustained and conserved in his species. Whatever burns is sulphur, whatever is humid is mercury, and that which is the balsam of these two is salt. Hereupon depends the diversity of human aliments. Man has need of ardent foods for the sustentation of his sulphur; he wants moist foods for keeping up his supply of mercury, and eats salt to cherish his nature of salt. If this order be violated, that species in the body perishes, whichever species is neglected; and when one part perishes the rest perish with it. This order must be kept in due series. The Academics know nothing of this philosophy, a fact not be wondered at, since in other matters they neither know nor can do anything.

Now, all the world over, there are ardent foods such as flesh-meat, fish, bread, etc. So there are humid foods, as springs, flowing streams, seas. In like manner, there is salt everywhere. These things are distributed over the whole world, so that everywhere the supply of them is ready to hand.

Now, with regard to the nature of man, the following should be accepted. The reason man desires food is on account of his sulphur. Why he needs drink, whether it be water or wine, is on account of the mercury; and the reason of his desiring salt is on account of his salt in himself. These facts are little known, but nevertheless nature does crave for these things. And this is not the case with men only; but animals, too, become fatter, stronger, more useful, and more healthy with salt than without it. If the due quantity of salt be not supplied, some defect arises in one of the two species, so that the animal decays and dies. Its nature is no longer supported by those necessary aliments which it requires. The condition of man is similar. Without nutriments of this kind he cannot live. The appetite of the nature with which he is born requires some satisfaction proportioned to his need. It is reported, indeed, that in certain newly-discovered islands men prepare no food cooked with salt, nor supply such food to their animals, but it is quite certain that their own nature and that of their cattle needs the salt water of the sea, and that they have cooked their food mixed with this. Nature never rests at ease, but constantly catches at and seeks for that which its necessity and use require, and thus compels cattle, not to mention man, to lick salted things.

For ourselves, custom and necessity alike prescribe that we eat salt in our food. Such an ordinance is natural and prudent. In this way three nutriments meet; that is to say, salt and food in one, and with these a third, namely, drink. By these nature is nourished and sustained.

I have said of salt that it is the natural balsam of the living body. That is, so long as the body lives, so long the aforesaid salt is its balsam against putridity. By this balsam the whole body of man, as well as that of other creatures, is kept and conserved. But if there accrue to man any decay or—if I may so term it—any cadaverousness, as in the disease called Persian fire, the reason is that. Now, if everything in creation is to be dissolved, it is clear that even the very balsam itself contains the elements of dissolution, and when once this dissolution begins, its strength and power increase. If the balsam is dissolved or corrupted (and the various modes in which this may take place are given in my Theory of Medicine), then forthwith corruption and decay begin, according to the mode in which the salt has been corrupted. If the salt has not undergone corruption, then neither the external nor the internal body of man decays. Hence we must conclude that salt is like a balsam in man; and that the natural salt which man eats is his food and aliment. I have discussed the subject of salt at some length, for the sake of securing fuller intelligence of the matter. Putting aside, therefore, the idea of a natural balsam, I would point out, moreover, concerning the salt in food, how it is an aliment, and with what gifts it is endowed by God, both for preserving the health of men and for warding off many diseases. But since nothing is so good as not to have some evil combined with it, it remains for us to recount the evil there is in salt, so that in this way the good and evil may be conjoined, and the one separated from the other. The nature and condition of salt are very remarkable. If salt can preserve the dead body or corpse, much more will it preserve the live flesh. If by its power and efficacy salt preserves the dead body from worms, much more the living body, and for this reason, that it is not only an aliment, but a necessary food and a medicine useful for old and young alike. Salt must be supplied to all.

But there are three kinds of salt. There is sea salt, which is salt of itself, not salted by others. As wine differs from water, so the sea in its nature differs from other waters. Other waters are sweet; this is salt. Secondly, there are some springs which are sweet yet salt at the same time. These have a special nature, insomuch as they have that nature not in common with the sea, but of themselves contain a different kind of salt. Thirdly, there are also mineral salts, with the appearance of a stone, of a different kind from other metals or minerals. The best salt is from springs. Next comes that from minerals. The harder it is the better. Then there is sea salt. And as salt is divided into many kinds, so also is it sundered into many and various properties distinct from one another. As to the way in which salt is prepared, there is no need to discuss that subject here, since it is clear enough. Neither is this the place to describe how it grows. That topic belongs rather to the Book on

the Generation of Minerals. My intention is to enlarge upon the virtues and vices of salt. In this case there is no need to speak of sea-salt. Whatever is written about white salt applies also to sea salt. Of rock salt not decocted again it is not treated here so much as of salt which has been so decocted. All salt, which is prepared either from water, or out of a saline and mineral, preserves the common order and virtue of salt; for the strongest foundation is in liquid. Sea-salt and rock-salt do not become liquid. But salt which is decocted passes into a liquid before it is separated from the water into coagulated salt. The description of salt, then, is twofold. One is that of salt from liquid; the other of salt which is entire and definite.

It should be known at the outset that this is the nature of every salt in its kind; it is a corrective of foods. When salt is defective food is not corrected. For example: if the stomach takes food which has no salt, its decoction is languid, and its assimilation imperfect. From salt proceeds an expulsive force in the excrement and the urine. If these two functions do not proceed regularly, and the expulsions are not genuine, everything is wasted. Moreover, if the food is not properly salted, it is certain that those liquids in man which take nothing unsalted cannot be fed. The blood becomes disorganised. Where salt is not incorporated or united with the food it is not attracted by the blood. Whatever is sluggishly and faintly attracted occasions decay in the blood. Now, in order to avoid this, and for the sake of those particular members, foods should be salted, so that they may not be deprived of their due nutriment. Moreover, there is a solvent power in salt. If any obstructions of the pores or other accidents arise, salt takes away or removes these, so that they pass away in the urine. Urine is the salt of the blood; that is, it is the salt of natural salt. Natural salt is united with nutrimental salt, and that conjunction causes the excrements to be expelled. If, however, salt is not supplied in due mode and sufficient quantity, a natural conjunction cannot be effected. Now, let every physician know that, since natural salt is wont to issue forth or be expelled by means of salt, the use of salt should be so much the more frequent. It is a great advantage if the salt called sal gemmæ is used, as being much more available than all other salts for expelling the natural salt. It is peculiarly the duty of physicians, therefore, not to neglect the three species of salt and the operations of each, but diligently to use them.

I have said above that the description of salt is twofold, one as a liquid the other as a solid or dry substance. Concerning the liquid, note this fact, that all salt dries up every description of humour that proceeds from the body. Nevertheless, the liquid itself in one hour has more effect than the dried salt would have in a whole month; so much more of a drying nature is there against superfluous humours than in dry salt. Even if dry salt be reduced it is not of equal excellence, as you will learn in its addition and correction. It is accordingly of great importance that the liquid of salt should be correctly described. If the liquid be prepared of such a consistency that it will bear up

and sustain a vessel or an egg when thrown into it, its virtue is as follows: whatever diseases are produced from humours, infesting the natural humours, these are purged when the liquid is exhibited. Of this class are moist gout, dropsy, humid tumours, and legs swollen by the influx of humours. To speak summarily, whatever leprous humour not existing naturally it touches, it consumes. It produces such effect in this way: the liquid itself is like a warm bath or hot springs. If it be so refrigerated that the patient can sit in it, he should wash in it as is customary in hot springs, and the like. This, however, should be done on the advice of a prudent physician, as to how long and to what extent the treatment should be continued. Thus those humours are absorbed, the feet cease to swell and are reduced to their natural condition. A sound and firm nature consists in a dry body, not a fat, adipose, and humid one. A dry and muscular body is the best and healthiest. Whatever bodies are not so constituted, but are fat, humid, and flaccid, should all be washed in that bath; thus they will be dried and become healthy. But if it happens that after a bath of such kind in progress of time the superfluous humours again invade the body after an interval, care should be taken that the patient spend his life and dwell near salt springs. A long life is better than a short one, and the pleasures of this world must not be considered. What diseases are of a kind to need this treatment you must learn from physicians.

But now, turning to dry salt, it should be known at the beginning that there are several different kinds, as common table salt, clear salt, sal gemmæ, rock salt, earth salt, and sal stiriatus. Whatever be the case with these, it should be known that any kind of salt put into water and used for washing wounds, preserves them from putrefaction and from worms, and so effectually removes any worms which may have been produced, that none are ever generated again. If wounds are kept pure and clean, they are healed by the operation of Nature herself, even if they are very severe, provided only they have not assumed a poisonous aspect, in which case, for the most part, not even a balsam does any good. So also in virulent ulcers salt is a singular remedy. Besides this, if salt be put into a bath, and a patient washes therein, he is freed from all sorts of scab. In this respect the liquid is more powerful, for it is a potent cure of scab and itch. And here, too, should be noticed the possibility of correction by which dry salt may be to a certain extent reduced to this form.

Salt is useful in many other cases than we have so far recapitulated in external diseases of the body. So many virtues be hid in the use of salt. In conclusion, it should be remarked that in process of time the liquid removes and cures baldness and mange.

Correction and Addition on the subject of a Second Time Correcting and Reducing Dry Salt.

The following is a recipe for correcting and reducing back again dry salt: Take common salt and the salt of urine in equal quantities. Let them

be calcined according to the rules of Alchemy for two hours. Afterwards let them be resolved in a cell in the usual manner. Thus you will have the reduced liquid. This is of such powerful virtue that in surgical cases it differs little from the true liquid of salt. For internal disarrangements of the body it is much slower in operation. In applying and administering it you will observe the method first mentioned. It should be known, also, that no addition is advisable, since the virtues peculiar to salt are found in no other substance. The less salt there is in other things the fewer similar virtues can be found; and therefore every accessory preparation is useless. If alkalis be decocted these are not a genus of salt, that is, they are not salt, but alkali. There is a difference between salt and alkali in that alkali is natural salt in bodies derived from the three species. But salt is nutrimental, feeding and nourishing even alkali. Therefore, no addition can be made, or any other correction, save only that the salt should be kept by itself without any addition, as was said on the subject of calcination. The same is true concerning the water of salt, which is distilled into a spirit from the calcined substance. This spirit resolves gold into an oil. But if it be again extracted and carefully prepared, potable gold of the most excellent character will be the result. But if without such extraction the gold be resolved, then it is a most subtle object of art for goldsmiths in gilding, and a constant and priceless treasure to other artificers for the same purpose. But, nevertheless, they must be skilled in Alchemy for the work of preparation.

Concerning clear salt, sal stiriatus, and the salt of gems, the fact is that these are most of all adapted to Alchemy, so that silver can be cemented in them after the common mode. In these salts, any Luna, that is, silver, becomes very malleable, and without the aid of fire is wrought almost as easily as lead is. It is also the best purifier of copper if it be reduced to a cement.

Besides the conditions of salt already mentioned, one other property remains. It is this. In whatever place the urine of men or animals is deposited, there salt nitre is afterward produced. The urine being collected and prepared so as to form another salt, is called salt nitre. Now, salt nitre is salt formed from the natural corporeal salt and the salt of food. If these two are joined in man they expel from him what is superfluous by means of the urine, which is nothing else than natural, corporal, and nutrimental salt meeting with other humours. Now, if the urine be excreted into nitre, and stand for some time, then the spirit of salt meeting together in its operation, prepares one salt out of two, and that, indeed, of a peculiar kind. This the Alchemists afterwards extract from the nitre, clarify by alchemical art, and separate that which is not salt from the salt which has been produced. That they clarify again, and then the salt nitre manifests its conditions. In the preparation, however, a separation of the salt may be brought about, so that the true and genuine salt may again be extracted from a certain part, and the rest mixed with the salt of the nitre. Now, the reason why the genuine salt can be again extracted by decoction is, that this salt is not digested in man or in the animal, but is passed out

in a crude state, so that it can be detected as such. But that which has been digested is mixed, and, as one may say, incorporated with the corporeal salt so that afterwards it cannot be separated, but passes into the form of salt nitre. No salt in the universe is like this one. Alchemy found it lying hid in nitre, reduced it to the form of a coagulated salt, and then evolved the latent virtue from it, only for purposes of Alchemy and the manual art. They tried to distil sulphur and salt nitre together, but this could not be accomplished on account of the violent chemical action produced. Having accomplished this afterwards by the addition of carbon, the Alchemists discovered gunpowder, and gradually so augmented this by new inventions that now it breaks through walls like a thunder-bolt. Hence it is with good reason called terrestrial lightning. By means of this salt many of the arcana in Alchemy are brought about which need not be described here. We have not yet got at the true foundation or any good end. It is best, therefore, not to write on this subject at all, so that no one may be led astray.

But, so far as relates to the art of Vulcan, it cannot be denied that great secrets be hid there. This subject relates in no way to the health of men, but purely to igneous preparations, which demand a chapter to themselves. The nature of man is indeed wonderful, since, from the body of man or brute, simply from its excrements, and by an internal motion, such a generation is contrived that when it proceeds from living beings it is so violent against life that nothing more destructive can be imagined. It destroys man's life with such swiftness that no defence is sufficiently strong against it. But these matters must be referred to metaphysical science in the Paramirum.

In the beginning of this chapter I said that Nature had incorporated salt in the liquid of the earth. From this salt all growing things have proceeded, and it is the balsam of salt which I have mentioned. It should be known, too, that from this salt another salt is found also in the earth, and like salt nitre. For Nature having pores, cavities, and cataracts in the earth, deposits in them stalactites and long dependent growths with the form and appearance of salt. If these are taken and prepared by the art of salt, they put forth two kinds of salt, table salt and salt nitre. It is called saltpetre, because it adheres to rocks, from which circumstance the name originates. Salt nitre and saltpetre, however, are distinguished by a certain difference. In the probation of salt the nature of each can be easily discriminated. A certain difference, too, can be observed in the species and powers of salt, so far as they relate to health and other matters. At the same time, I do not think it advisable that the salt which is formed from the salt nitre and saltpetre for food should be given man to eat, unless you wish to make him lean and dried up. Otherwise, it is very useful for gunpowder. It acquires another spirit, a different nature and condition.

Now, one must speak of the losses and injuries of salt, for it is well to write of the evil as well as the good. Let this be understood concerning salt, that if it be not digested it is driven from the stomach through the intestines,

and in its transit causes so severe a colic and bowel complaint that it can scarcely be cured even by the most careful treatment. It acquires such a strong corrosive force that it seems as though it wished to eat away all the intestines. It has been often discovered by anatomy that a separated salt of this kind has produced perforation of the bowels.

Besides this, if it remains in the stomach it causes craving, heat of stomach, and other ailments, all of which arise from crude salt adhering to the orifice of the stomach. In the case of these patients the physician must take great care to observe whether that salt has proceeded from salted, smoked, or dried foods. Salt is not added in equal portions to every kind of food; and this circumstance should be diligently considered by the physician.

It also happens sometimes that this salt enters the mesenteric veins, and is there granulated and constipated, whence arise many unusual diseases, not only local but extending over the whole body. The same may also occur in those parts to which the urine penetrates on its passage to the emunctories. All this we leave to be weighed by the prudent physician.

Now, therefore, we will conclude as to the matter of salt in its kind. We thought it should be specially described, as it is a German growth. Many more things could be said of it here, but they are not all relevant, and many of them would be injurious, so that I have been unwilling to discuss them. What seemed to me useful I have done my best to impart as the result of my experience.

APPENDIX III.

[The treatise which follows constitutes the seventh chapter *De Naturalibus Rebus*, and may be compared with *The Economy of Minerals*, c. 17. It is an addition of considerable importance to the Hermetic Chemistry of Paracelsus.]

CONCERNING SULPHUR.

GOD created the resin of the earth and endowed it with many unspeakable qualities, not only for remedying diseases, but also for alchemical operations. Other virtues also are conspicuous in sulphur, which is a resin of the earth. It will be suitable, then, not only to discuss the medical virtues of sulphur, but also to treat of its alchemistical and other uses. Much has been written and published on the subject of sulphur, but no one has ever yet reached the source of its true power. Many authors have undertaken to describe everything, but they understood nothing. They piled up heaps of matter, but deduced nothing from the source as a good writer should do. They did not understand the subject themselves; and though ambition led them to keep on compiling books, those books were without spirit or life, in fact, a mere dead letter.

I, as an experienced man, will lay before you what I have learnt about sulphur, and what is comprised in it as regards medicine, alchemy, and in other respects. Unless God Himself interposes and hinders, the operations of sulphur are stupendous, so that the natural light in man cannot sufficiently admire them. If God does not hinder, any defect is in the artificers, who handle their sulphur so that the result does not correspond to its innate virtue. When every simpleton is made a doctor and every trifler poses as an alchemist, this fact accounts for science not being brought out into open light. And the foundation is that so many arcana and powers of both faculties are contained in sulphur, that they cannot be thoroughly investigated by any—because, I repeat, such excellent virtues are latent therein, they are deservedly the subject of universal wonder. After long experience gained in both faculties, these powers of sulphur were discovered and understood by me, and I realised that scarcely any exist which are superior to them, or which can even be compared to them in medicine and in Alchemy. Sulphur confutes Aristotle when he says that the species of things cannot be transmuted.

Sulphur transmutes them; and if Aristotle were alive at the present day, he would be completely put to the blush and made ashamed of himself.

One who practises as a physician or an alchemist does not use Sulphur as it exists *per se*, but rather as it is separated into its arcanum, and so cleansed from its impurity that it becomes in its virtue whiter than snow. This is accomplished by Ysopus, that is, the art of separating, which was anciently called the Ysopaic art in Alchemy and in all kinds of sequestration. Even when crude, it is remarkable for common use and for all external purposes. But, in order to be quite accurate in explaining Sulphur, I will differentiate it first according to its nature. It is not produced from one matrix, but from many. Hence it has diverse modes of operation, and comprises many natures, differing one from the other. These I will detail separately, so that no physician may make any mistake, and so that it may be clearly known what is its use in medicine, and also how far it is serviceable for Alchemy. When these points are established I will go on to specify its daily uses. So, then, when we shall have explained accurately and in due order its use in medicine, in Alchemy, and in other respects, all its operations will be understood by everybody, so that they will be able to handle it without danger of error.

Concerning the Kinds of Sulphur.

As often as you get new metal, so often you get sulphur; because no metal is without sulphur. Every metallic body consists of three things, sulphur, salt, and mercury. In the perfection or generation of metals, however, the superfluous sulphur is removed. You see a nut generated, not simply *per se*, but with a skin and a shell, and you know that these are superfluous save for the embryonic conservation of the kernel, as is explained in the treatise concerning generation. I adduce this illustration to shew that there are as many kinds of sulphur as of metals, each bearing relation to the nature of its own metal. And this is true not only of metals, but of stones. There are as many kinds of sulphur as of stones. All bodies having their own substance are made up of the three constituents just mentioned. On this account they have an embryonated nature. Hence arise different names of sulphur, for example, the embryonic sulphur of gold, silver, sapphire, marble, etc. The sulphur is distinguished by the name of the embryo, which arises from the generation of a single product, be it metal or stone. Nor do I speak of metals and stones only, but also of all the different corporalities, such as vitriol, alum, marcasite, bismuth, antimony, etc. Each of these comprises an embryo, which takes its name according to the speciality of its own generation. For instance, the embryonate sulphur of Mars is different from the embryonate sulphur of vitriol or of jaspis. The same holds good concerning growing bodies of the earth, as woods, herbs, and the like, each of which contains in itself a sulphur of this kind.

One thing should here be mentioned. It sometimes happens that embryonal sulphur of this kind produces metals of fair quality, gems pure and

bright, and other matters of like nature, because in that generation whereby they are produced, something is united therewith which is, as it were, a certain spirit of that body. And not only the spirit, but with that same also a corporality, but a subtle and ephemeral one, which cannot sustain any fire. Apart from the Vulcanic operation it is produced in those metals whence it arises, in gold from gold, in lead from lead. Similar preparations are also sometimes made in the sulphureous embryos of gems, by which are separated mutually from one another dead sulphur, of a weak character, and a precious stone, latent in it, all which things have been discovered and investigated by art. But this stone was like that from which it was produced, granate from granate, hyacinthus from hyacinthus. Relegating these things, however, to the alchemical process, we will here point out only what experience has taught and confirmed in the science of finding out secrets of this kind. Let the alchemist, therefore, in investigations of this nature, give his attention to finding out the embryo, lest by chance he light upon something else. Let so much be said, then, concerning one kind of sulphur, as to its origin. Besides this there is another generation of sulphur, *per se*. This I will now describe, and will set forth its virtues in medicine, Alchemy, and other arts.

Sulphur, then, has still another generation, and one peculiar to itself, without any embryonic nature and condition, so that it is a thing growing by itself, like a beech or an oak, separated from other substances by its own special genus. This is called mineral sulphur. This sulphur is a mineral *per se*. And as the Vulcanic art teaches how to separate minerals so that the true body may be taken away from the false,—as silver or iron from its ore,—so also in mineral sulphur there is a body which is extracted, as tin from its zwitter.

That body is mineral sulphur. Of this sulphur there are many different kinds, no one exactly like another. Thus you see in all those things in which Nature abounds for us, that the genus is distributed not into one but many species. There is not only one lead, one copper, one gold. So, there is not only one sulphur; since one sort is of a higher, another of a lower grade, or they have more or less of transparency and clearness. For this reason medical properties also should be sought therein. And this difference should be especially kept in view by alchemists, so that the particular species which is sought may forthwith be found. From this, it is sufficiently clear what are the different kinds and conditions of sulphur, and how they are to be recognised. But beyond these, I should wish you to know of another kind which is a special secret, as follows:—In alchemical separation, gold is dissolved from its corporality, as also silver, every metal, and gems, from all which the sulphur withdraws, is prepared, and extracted. Of this kind are the sulphur of gold, the sulphur of jaspis, the sulphur of vitriol, etc. And in truth, various secrets are here used; but this sulphur is so excellent an arcanum that nothing like it can be put forward, nor, indeed, ought to be in this place since this matter relates to Vulcan. So, thus far, we have put forward a triple

sulphur. Of these three, I will point out how they are useful to the physician, the alchemist, and the soap maker respectively.

Concerning Embryonated Sulphur.

Concerning embryonated sulphur it should be known that it has different virtues according to that from which it is derived, that is, from its generators. Let us use an illustration to explain our meaning. A nut, *per se*, is simply the kernel. But the kernel contains in itself an integument which corresponds to the nut. As in foods, the kernel differs from its integument; so do their virtues differ. Over against this, again, a dry shell is produced, which is of a nature altogether different from the nut. As the bodies differ, so do their properties. Over this, finally, grows a green rind or bark, where the same diversity is once more observed. The chestnut, for example, has these two coatings. And as the chestnut differs from the bark when masticated in the mouth, so do the properties differ. I say this in order that you may understand how embryonated sulphur is also a similar impurity from its embryo and differs from its true products by as wide an interval as its form, essence, substance, and corporality differ. The virtue of the nut is not to be looked for in the shell; so neither is it in embryonated sulphur that one must seek the virtue of gold, silver, tin, copper, emerald, or jacinth; but another virtue must be selected for medicine. Many virtues are hidden in these sulphurs, each differing from the other. This, also, which now we are going to say should be noted before all else, namely, that with all these sulphurs the spirit of arsenic blends, more subtly in one than in another. As is that which is generated, so also is that arsenic sometimes like realgar, sometimes like auripigment, sometimes like crystalline, etc. I adduce these facts in order that you physicians may understand that you ought to be naturalists—not sophists—so that you may know natural substances, and discover what is this arsenic in embryonated sulphur, so that you may not treat men as though you were robbers. They only know the sulphur of the hucksters' shops. They would not even know that if they had not heard it talked about. Yet, all these things ought to be known thoroughly from Nature herself, if we would not lend ourselves to robbery, but would have a good conscience towards God. You Academicians think nothing of this, content with one thing—if money flows into your pockets. Yon care nothing for God, the Creator of yourselves and of all Nature.

Moreover, note this with reference to the embryonated sulphur of the metals. It can be clearly seen how it firmly conserves and restores its own particular member. For all the seven members require minerals only, and no other remedies for their ailments. Thus the sulphur of gold is beneficial to the heart, the sulphur of silver to the brain, the sulphur of copper to the kidneys, the sulphur of lead to the spleen, the sulphur of iron to the gall, the sulphur of tin to the liver, the sulphur of quicksilver to the lungs. But all these avail in one disease only, as in the suffocation of these members, if there be a flux of humours in them which threatens such suffocation. Although

among the ancient and rival physicians no recipes are found against suffocations of this kind, still they one and all decline learning how to prepare these embryonate sulphurs, and to administer them to their patients when necessity requires. I write here, therefore, concerning this one sole virtue, because no medicine has been found for suffocations, which is able to do what these metallic embryonated sulphurs do. As to their other virtues, these will be dealt with under the head of mineral sulphur. They suit all operations ; but the metallic are stronger than the mineral sulphurs, and must be used with greater caution.

Moreover, there are also the sulphurs of gems in which precious stones lie as a chestnut within its thorny bark. The constitution of eagle-stones is well known. In the same way, also, all gems are by Nature enclosed in some thing which is their embryonate. In that embryonate, sulphur lies hid. When this is extracted you have no less virtue than in the stone itself, not, indeed, for wearing, but for using in place of medicine. So it is well known that in the sapphire is concealed the virtue of removing anthrax, and reducing it to an eschara above all other corrosives, and yet without any corrosion. Of the same nature is its sulphur, if, indeed, it be extracted from the body and be used as a plaster. Laid on thus, it produces the same effects. And this is the case not only with anthrax, but also with cancer and Persian fire, especially at the beginning, if it breaks forth with an abscess. Care must be taken, therefore, that from those gems which we Germans have we extract the virtues which are applicable to these special uses. If you have these virtues in gems you will have them also in sulphur, with the same mode of operation. They are not, it is true, equally strong in the sulphur, but still they are there. The application, separation, and gradation cause it to accomplish the same result. The correction and gradation alone tend thereto, otherwise none of these results could be brought about. As in the beginning, I took an illustration from the difference of the shell and the kernel in a nut, so is it to be understood here. But if the kernel of the nut be corrupted or dissolved, so that it is no longer useful for food, the nut still has the same properties as its shell. Let us take a further illustration. Suppose the kernel is burst, and an alkali formed from it, then, in like manner, the shell becomes an alkali too, and both tinge with a black colour those substances which were not previously black. When, therefore, I say that the virtue of the embryonate is like that of the generated, I would be understood thus, if the generated be dissolved and reduced to a Vulcanian preparation. The same must be understood of all the embryonates of gems and the rest.

But with regard to embryonated sulphurs in cachimiæ, such as marchasites, antimony, talc, etc., it should be known that if they are extracted from their bodies and from the matters adhering to them, they produce a similar clear and bright sulphur. In proportion as the degrees hereof are graduated in the operation, the operation itself and the virtue answer to that degree. As this is extracted, so are all other embryonates, of which there is more to be said in

their alchemical operation, which cannot properly be recounted here. But the virtue is this, that it rivals those which are generated if it be corrupted in the preparation. Secondly, they are specially useful in all phlegmatic cases, especially in phthisis, peripneumonia, empyemata, and every kind of cough. Whatever can be naturally supplied in any way, that this sulphur brings to its condition. I have no greater desire or longing than that the state of the world to-day, among its princes, kings, and magnates, may be the same as it was in the time and age of the Magi. Then the virtues in all things would so shine forth that all men would admire God, being such a profound artificer as He is, since He has hidden so many miracles in Nature, in order that man may trace them out. The Magi passed away, and the drunkards rushed into their place, and now nothing remains but whoremongers, mockers, robbers, and thieves. One ought to grieve from the heart that there is to-day no Magus flourishing among princes, but all things on every side have degenerated into mere trifling and ineptitude, while wolves sit at our councils, and have the mastery, who by their exactions and their usuries make more than enough gain for themselves and their lords. This fate awaited the Science of the Secrets of Nature, that after the passing away of the Magi, or of Magic, all the sciences also perished together by the same fate; and in their place arose scribes with long garments, and rapacious wolves, who, swaying all rights by their mere nod, threw all things into a state of terrorism. What shall I say? The arts have perished, and in their place a den of robbers has been substituted.

Next in order, concerning the embryonated sulphur in vitriol and its cognates, which are species of vitriol. Know this, that they all produce a wonderful sulphur when animated bodies are separated from their embryonates, as from salt, from the sal gemmæ, from different species of alum, from vitriols, etc. Here I will lay down a general rule for you, namely, that all sulphurs formed from vitriolated salts are stupefactive, narcotic, anodyne, and sleep-producing, with this special property, however, that here the somniferous condition is so placid and gentle that it is free from all harm, and does not act as an opiate, as is the case with henbane, pepper, mandragora, etc., but safely, quietly, effectually, yet without evil consequences. Such a sleep-producing stupefactive, therefore, decocted, prepared, and corrected by Nature herself, is worthy of the highest praise. Physicians are agreed that soporifics of this kind produce many wonderful effects. In opiates, on the contrary, there is so much poison that, except in the form of a quintessence, they cannot be used; and the more confidence should be placed in this present soporific, since we know that there are many diseases which are not curable without anodynes, and of which the whole remedy has been placed by God in these anodynes. This is the reason why I write the more carefully about this sulphur. How it is found and prepared is described in the alchemical process. Here, however, concerning this same sulphur, it may be mentioned that of all the productions of vitriol it is the best known extract, because it is fixed of itself. Then, too,

it has a certain amount of sweetness in it, so that poultry will eat it. It sends them to sleep for some time, but they wake up by-and-bye without feeling any evil effects from it. Concerning this sulphur there cannot be two opinions; in all diseases curable by anodynes, without any ill effect, it lulls all passions, soothes all pains, reduces all fevers, and prevents the severe symptoms of every disease. This ought to be the first remedy and preventive in all ailments, being followed up by the quintessence as a tonic. What other means can raise physicians to a higher position, beyond all Apollos, Machaons, Hippocrates, and Polydores? And this is called the philosophers' sulphur, because all philosophers aim at these results—to prolong life for many centuries, to make men live in health and resist disease, and they have found this faculty in its highest degree in this sulphur. That is why they have given it this name. Give your utmost attention that you may learn how to graduate, separate, and purify it.

Besides this there is another kind of embryonated sulphur in wood. This sulphur is only fire, which none can kindle save in wood, which also perishes with the wood. This sulphur exists in all substances which are wooden, or which in burning can be reduced to ashes. It is vegetable, not fixed, and available only for those substances which have to be prepared by fire. Everyone knows that this sulphur indicates the virtue of other sulphurs in that way. As it is itself fire, consuming all things, so every sulphur is an invisible fire consuming diseases. As fire consumes wood visibly, so does the other invisibly. For this reason the element of fire is a great arcanum in all diseases. Whatever physician has not this element of fire in its arcanity—if I may coin that word—cannot boast that he is a true and tried physician. He is a mere tyro, and pilferer of people's purses. One may now say, then, that sulphur is the element of fire. But if you contend that sulphur is fire in its medicinal effect, you must take care that it be reduced to its proper volatility, so that it may vanish like flame, that is, it shall be so subtilised that it will leave its own body, and its own body is separated from it, because it is not an element of fire. The sulphur being reduced to subtlety and volatility, then at length the consuming body must be consumed, that, namely, which is not fixed by Nature. So diseases are not fixed; but the body is fixed against the element; and the element of fire, at least, is opposed to that which is not fixed against it, that is, it is opposed to diseases. Now, if sham physicians had acted thus, if this our philosophy had found a place and acquired development in the schools of medicine, while the triflers and mountebanks, with their blind eyes, were banished, there is no knowing what position might have been reached, while these people would have avoided any number of homicides of which they have been guilty by their rashness. In the meantime, since they have no consciences, what can one do but let them pose as sham physicians? But whoever wishes to be a true physician must hunt out the virtues of the elements in natural things. There he will find, not only truth, but how to cure his patients. There are, then, two kinds of embryonated sulphur, one fixed, but made volatile, the other pure fire. That is

to say, one is living fire, the other insensible fire. Each, however, the sensible as well as the insensible, has a like consummation, the one in wood, the other in diseases.

Concerning Mineral Sulphur.

The following is a brief dissertation on mineral sulphur. Of the mode of separation from its scoria it is not necessary here to speak. This is treated of in the book on "The Generation of Minerals." It is well, however, to know something of its virtues. It must not be used in its crude form for medicinal purposes, but has to be separated from its fæces. In this way it is a remarkable medicine, if it be raised in the second or third degree from aloes and myrrh. It is an excellent preservative in the plague, in pleurisy, in all abscesses and putridities of the body. Taken in the morning it prevents the pestilence for that day, or pleurisy, or abscesses, especially if it be prepared according to the following prescription. Rec. Of purified sulphur as above described, ʒx.; of Roman myrrh, ʒi. and a half; best aloes (*aloe epaticus*), ʒi.; oriental saffron, ʒss. (half). Mix and make into a powder. Moreover, if it be elevated several times from vitriol (the oftener the better), it then takes into itself the essence and virtues of vitriol. In this way it is a preservative in all fevers, and a curative in every kind of cough, whether recent or of long standing. It is also a preservative against the falling sickness, and a curative in childhood. If it be taken daily it preserves the health, and prevents anything untoward from happening. In business and commerce it is a corrective of wine, so that it remains sound and uncorrupted, and is wholesome for those who drink it. It must not, however, be used in a crude state. It is so powerful a preservative for wine that it leaves nothing impure in the wine, but drives it all out. If wine is treated herewith it does not produce gravel or calculus, apoplexy, abscesses of any kind, fluxions, coughs, fevers, etc. Nothing can be found like it, or of equal efficacy with it, when it is prepared. It is not without reason, therefore, that I here sound its praises. If one had time, a very few pages of this our writing would suffice to establish this point in discussion with the academic doctors. Pearls are not to be cast before swine; and these would rather see people sicken and die than yield a jot of their opinion, although they are not able to be of the slightest use to the sick. But to return to mineral sulphur: observe once more that it must not be used in a crude state, but prepared. The more carefully it is prepared, the better it turns out; at length it throws off all its dregs and poisonous character, and everything in it that is useless retires from it; what remains is a pearl of price and the most desirable of medicines.

Crude sulphur has the property of bleaching red colours with its fumes. It turns red roses into white ones. If it be used medicinally in an elevated state it produces whiteness, but only externally. Moreover, it should be observed that there are several kinds of sulphur, differing in colour. There is, for instance, the yellow, the yellowish, that which is red in a greater or

less degree, purple, black, white, ash-coloured; but of these colours none is any use except the yellow.

The more yellow sulphur is, and the more it inclines to gold colour, the better and more wholesome it is. The others contain a good deal of arsenic, realgar, etc., and so are avoided in medicine. But so far as concerns alchemy, these others are better on account of the ingress which they have through such spirits of realgar.

Moreover, it is worth mentioning that this sulphur removes skin diseases and other external affections of the body. In these cases the coloured sulphurs are better than the yellow, on account of their subtle arsenical spirits. If these sulphurs are sublimated with vitriol, alum, sal gemmæ, sal plumosum, etc., several times, they become so subtilised that they completely eradicate skin disease and ring-worm. This treasure is so precious because it removes externally those blemishes which have an internal origin. As the magnet attracts iron to itself, so that it moves from its position and does not remain where it was, so here are magnetic powers which cannot be altogether explained. A single experiment in the Vulcanic art opens up these marvels of Nature.

God has supplied medicine in sufficient quantity. The blindness lies in the fact that no one attempts their preparation, so that the useless may be separated from what is useful. They think it suffices if, like apothecaries, they jumble a lot of things together and say "Fiat unguentum." This has been so far esteemed learning: and the world has returned to such a condition that medicine is mere trifling, and not, as it once was, an art or a science. It is not the artists in medicine, but the mere sophists, who have the pre-eminence. Yet, if medicine were handled by artists, a far more healthy system would be set on foot. Note, then, with regard to sulphur, that when it is granulated it is a most useful medicine for man, not, indeed, taken internally, but exhibited externally, even in the form of fumes. In this way, as we have said, it preserves and conserves, with the addition of some grains of juniper, rosemary, etc.

Concerning Metallic Sulphur: that is, Sulphurs prepared from the Entire Metals.

Alchemy has devised certain arts and modes whereby metals are drawn out of their bodies, so that they are no longer metals but a certain destroyed matter which has lost its former condition. On this subject it should be remembered that every metal is made up of three constituents, salt, sulphur, and mercury. Since these three, then, are the primal material of the metals, it follows from hence that these three can be destroyed and dissolved and so subjected to art, that they can be reduced to another essence and transmuted. This destruction having been made, the three primals can be still further separated by art, so that the sulphur remains solitary and by itself, as does the salt, and the mercury respectively. We will speak here of the sulphur,

leaving the other two on one side. Sulphur is separated from other metals in this very way. Whatever forces I have assigned to sulphur generally, these also exist in the metallic sulphurs; and the more so because the metal has acquired a special nature from that which makes it a metal. Of these virtues some are conferred on sulphur, so that the metallic is more excellent and more noble than other sulphurs. And the physician ought to know that all the virtues of sulphur are present in this kind of sulphur, graduated to their very highest degree (if I may so say), and endowed with the condition of the metal. Hence, sulphur acquires from gold the virtues of gold, from silver the virtues of silver, from iron the virtues of iron. Whatever iron does, whatever the crocus of Mars does, whatever the topaz of iron does, all these same things the sulphur of iron does. In like manner is it with the sulphur of castrum, of lead, and of other metals. Every physician, therefore, should get possession of these sulphurs. The dose of them is small, but the effect is marked. These should convince the physician that God has set a remedy over against every disease. It this be true, the physician should be produced by magic, whereby he may understand all the secrets of Nature. Thus it will be made clear that Nature has such resources as to heal even the lepers. The physician who is unacquainted with magic is a mere tyro, and will remain such so long as he lives. It is a difficult matter to have understood medicine, and to have visited its innermost shrines, at all events for those who are unacquainted with the Cabbala and with magic.

Concerning the Alchemical Virtues of Sulphur: and First Concerning Embryonated Sulphur.

The extraction of embryonated sulphur is brought about by sublimation, and sometimes by descent, if the sulphur be properly ripened and there be a plentiful supply, without the admixture of other bodies. Sometimes, if it be too subtle, it will not admit of sublimation or descension, but must be extracted with strong waters, so that by means of other bodies it may be reduced to water and then coagulated again from the water. There are many kinds of these strong waters, which we will not recount here, but they should be of such a kind as not to take away or change the power of the sulphur. For if they be extracted by art, according to their own concordance, they will not, indeed, be golden, but in alchemy they will be very convenient sulphurs for other preparations. They admit of fixation, and so produce in cements a volatile subtle gold in metals, in such a way that they bear separation in strong waters and put forth their gold. Otherwise, from this sulphur nothing can be hoped for in alchemy, unless it be extracted, according to its concordance, from those things in which it is latent, and afterwards be fixed. If, as is often the case, it contains gold, that is discovered by fulmination. It is likewise so fixed for retaining all volatile gold that it cannot otherwise be restrained, nor is it taken in separation on account of its tenuity of subtle corporality. Many processes have, indeed, been tried for making a tincture out of

sulphur. These have not succeeded, because there is no tincture in it. It is, therefore, labour in vain. Unless gold were contained therein, nothing can be sought there, nor ought it to be attempted that gold should be produced in other bodies. There is none of a silver character, only golden, and one kind more so than another. As far as concerns antimony, red talc, gold, marcasite, etc., they are rarely deficient in gold. Whoever wishes to treat this, let him take care to separate the sulphur so subtly that nothing shall depart from the gold. And unless God opposes (for He does not wish all to be rich, and Himself knows the reason why goats have not longer tails), much could be here imparted in few words. But since riches lead the poor man astray, and take away his modesty and humility, adding haughtiness and pride in their place, therefore it is better to be silent and let these people remain poor.

Concerning Mineral Sulphur.

Next in order I will impart to you some marvels, though I am aware that this discourse concerning the wonderful use of sulphur in alchemy will be unacceptable to many. It is known to all that the spirit of the sciences does not take holiday, but works constantly and unremittingly, that it may hunt out and discover those facts in the secret things of Nature which God has hidden. With this spirit there goes together for the most part another bad and false spirit, not only in this art, but in others too, even those which regard the soul. But concerning this false spirit I keep silence. The devil, indeed, mixes himself up in all matters, but I make no remark on his deceits. For the sake of this mineral sulphur the alchemical art has made many attempts to form something from it which shall be more than sulphur. Now this itself is a miracle—to make something more out of a thing than the thing of itself is. This, however, God has allowed to be done by art. Now, since this would be the very potency of art, the great Master of the art Himself has, by superintending the art, made experiment as to what can be formed from sulphur, and how ; something which is not in the sulphur itself, but, however, can be obtained from it. The woman by herself cannot beget children, but she begets them with the man. If this begetting is to be accomplished it must be by means of two. Here art is the man and the father who brings all things to perfection. But now that stage of the operation has been reached when the spirit of transmutation has given its prescription for making the liver or lung from the oil of flax and sulphur. The distillation of this liver or lung is manifold. But it is found out by operating that this liver is given by milk, which differs in no respect from common milk, but is thick and fat. It also gives a red oil, like blood. This milk and that blood have not confounded their colour and essence in the process of distillation, but these have remained distinct and separate, the white subsiding to the bottom and the red ascending to the top. Art, it is true, has urgently sought to form silver out of the white or the milk and gold out of the red. But I am certain that this has never been able to be done, either by the ancients or by those of more

recent times. I say, therefore, that the milk is dead, and nothing is contained in it.

But concerning this red oil, which gives the liver-mark. Any crystal or beryl which has been previously well polished, if it be placed in this oil for some time, namely, for three years, becomes a jacinth. If there be placed in it a ruby which is not highly graduated, in a space of nine years it becomes so clear and bright that it shines in the darkness like a burning coal, and can be seen everywhere. This has been proved experimentally. Alchemists, indeed, have tried to make a carbuncle of it by placing a jacinth of good quality for some time in the oil. But my experience says that this cannot be done. And this colouring does not take place only in the ways that have been mentioned; but the same oil tinges a sapphire also a blue colour, mixed with green. In the same way it colours other gems. Over glass and similar substances it has no power. But it so exalts gems that they attain their highest degree of excellence, a higher one, indeed, than that to which they could be exalted by Nature. Concerning other gradations and colourings of gems nothing more has been heard or written than that the red blood of sulphur colours and tints them. And here observe that all silver, if it be placed therein and left for a due time, by-and-bye grows black, and deposits a calx of gold, which until the proper season is not fixed, but is a volatile and immature substance. If, however, it reaches its proper limit, by its own despatch it hastens on other things, about which I must not say more here. So, then, remark concerning sulphur, that if it be duly graduated, the more subtle, beautiful, high, and quick in operation it is, the higher and greater will be the result. In this way metals and stones are formed. Let him who is about to make the attempt not think, but be sure, that he can do it. For this is the most perilous work of all in alchemy, needing for its accomplishment great experience and continual practice. It should not depend on mere hearsay, but on manifold practice. Of the virtues themselves and how they are graduated, I cannot say anything. I speak of the colourings only, that they should be exalted to the highest degree. But that this should take place in colours I do not think possible. This is a tincture not of virtue, but of mere colour.

Concerning the Use of Sulphur of the Metals in Alchemy.

I have several times in this chapter mentioned sulphur prepared from the decomposed metals, and added something as to their use in medicine. So far as relates to alchemy, I would have you know that many have tried to extract from it a tincture with which they should change things from one tint to another. This has not been successful, for a reason not to be mentioned here. But whoever has the sulphur of gold can by means thereof graduate other gold from 24 to 36 grains or more, so that gold cannot mount any higher, whilst it abides and remains in antimony and quartarium. But the sulphur of silver, too, so exalts silver in its whiteness, that if copper and silver are mixed in

equal proportions, they cannot be discriminated by the needle or the Lydian stone, but both seem to be equally pure and choice silver. In the same way, by the sulphur of copper, the metal copper can be brought to such a state that it is proof against lightning, even though it be not graduated, and retains its own colour. From the sulphur of Mars is made the best and most excellent steel. From the sulphur of Jove, the best tin, which will bear the lightning. From the sulphur of Saturn is made fixed Saturn, which gives neither white lead, nor minium, nor any other spirit. The sulphur of quicksilver reduces quicksilver to such a point that it can be wrought with the hammer, and bears the fire as well as copper does. The ashen fire, however, it does not bear. This is the power exercised by the sulphur of the metals over its own special metals. This is *per se*. If the sulphur of gold is applied to silver it colours it, but has no power of fixation; and this is always the case with the transmutation of sulphur into some other metal.

So far, then, you have learnt how many kinds there are, and what are the nature, properties, and essence of sulphur. Whoever wanted to say all that can be said about sulphur would consume a great deal of paper. The subject demands a careful workman, a ready and skilled artist, one who does not shout or traffic in trifles, who does not deal with his art by mouth and tongue only, but puts it to the test of work itself. Miracles will abound for such an one. He who knows nothing about sulphur is a man of no worth, unskilled both in philosophy and medicine, and conscious of none of Nature's secrets.

APPENDIX IV.

THE MERCURIES OF THE METALS.

IN the year 1582 an octavo edition of the *Archidoxorum Libri Decem* was published in Latin at Basle, and included several other treatises of great importance, some of which are absent from the Geneva folio. Among these there is one upon the Mercuries of the Metals, which fills a somewhat curious lacuna in the writings of Paracelsus, as there is no other extant work attributed to him which treats individually of Mercury, while concerning Salt and Sulphur there is an abundance of material which not a little embarrasses selection. It is entirely devoted to experiments, and it will be consequently of the more value to practical students of early chemistry.

A Little Book concerning the Mercuries of the Metals, by the Great Theophrastus Paracelsus, most Excellent Philosopher and Doctor of both Faculties.

Extract aquafortis out of 4 lbs. of salt nitre, with 3 lbs. of green vitriol, ℥ii. of alum, and ℥i. of sal ammoniac. After it has subsided with a little copper, dissolve in this water ℥i. of crude sal ammoniac, which has previously been slightly pounded. Let there be hence produced aqua regis through V. In this water dissolve ℥ii. of gold, which has previously been well and most exactly purged by antimony. After the dissolution has taken place let the calx subside; effect separation by drawing off the aquafortis; and then reduce the calx by washing to a sweet condition. For this purpose wash six or seven times with sweet water until no sharpness of the aquafortis any longer remains. Subsequently dry the calx over a slow fire, weigh it, and you will find that a third part of the weight has been extracted. Thereunto add an equal proportion of very finely pounded sulphur, a double quantity of vitriol, and white calcined tartar to the weight of all the aforesaid things. Pound all of them very finely, place in a glass vessel, and pour upon the top exceedingly strong vinegar, together with salt water, so that aqueous matter may swim upon the top to the height of two fingers, more or less. Seal the vessel effectually, and place it in a cupel, or alchemistic furnace, for thirty days. The furnace must not be of sufficient heat to burn the finger when placed therein. At the expiration of the time specified break the glass, when the matter will be in the form of washed silver, or calx of silver which

is friable into small grains. Mercury, meanwhile, is not visible. Therefore place the said matter in a mortar, and pound with a wooden pestle, for Mercury is compelled by pounding. Let this process continue until Mercury shall become complected, and a live matter, or body, shall have been produced. Nevertheless, it is not so quickly produced or composed as Mercury of Saturn. Next cleanse the remaining matter with fresh and clear water; dry it perfectly; and you will have Mercury of the Sun, when the gold will be no longer fixed but voluble, and can be sent through the corium, whereby any impurity which may chance to remain is separated.

Mercury of the Moon.

Let silver be reduced to thin plates, in such a way that it may be easily removed, and at the same time well purified. Sprinkle one of such plates with strong vinegar, and set aside in a humid place for a short space of time, until it becomes completely blue. Then dissolve with aquafortis separated by the separation of solution, and after it subsides, and the aquafortis has been affused but not sweetened by washing, and dried gradually, pour vinegar again upon the calx, and then separate until the whole becomes completely blue.

Then take ʒii. of mountain or mineral cinnabar ground to a very fine powder, and afterwards ʒi. respectively of calx of silver, cinnabar, alumen, sulphur, and vitriol. When ground subtly place all these in a jar, including the calx of silver, which ought to sink to the bottom. Furthermore, cover the surface of the matter, or compound, at the top of the jar, with welding sand, such as the workers in iron are accustomed to use. Afterwards place this jar, mouth downward, on the top of another jar, which must be filled with pure water, and hidden in the earth by descent. About the upper jar kindle a slow fire, and increase it more and more until the whole of the said upper jar shall become white with heat. Let it cool a little, and the Mercury of the Moon will be found in the lower jar. Let the jar remain for two hours, more or less, at a white heat, and thus out of ʒii. of the Moon is produced ʒi. and a half of Mercury, which is altogether like crude Mercury. This is again pressed through the corium, so that the pure may be separated from the impure.

Mercury out of Venus.

Take copper reduced to thin plates and purged to the utmost of all dross. Divide it into small particles, and confect with salt on a tigillum, layer upon layer. Seal the upper orifice of the tigillum, so that nothing may evaporate. Place the said tigillum on the hottest part of a brick furnace for nine days. Then take out the copper, when it will be of red colour approaching blackness. Pound it with salt in a mortar as soon as it has been removed from the tigillum. Macerate the powder in strong wine, and let there be added to each ʒv. of subtly ground arsenic, ʒi. and a half of copper. Leave each of these together for the space of fifteen days. Let the measure of wine

be sufficient to swim over the powder to the height of two straws. When removed there will remain an excellent, brilliant, whitish calx. Wash this in fresh spring water.

Take of the Calx, ℥ii.
of Sulphur, ℥ii.
of Gluten of Sulphur, ℥ii.
of Vitriol, of Arsenic, of Alum } each ℥ss.

Mix each of these, when very finely pounded, with half a measure of the best vinegar. Let them all be distilled through the alembic until no further water can be extracted. Then add fire, remove the water, and there will collect on the side of the top of the alembic a white powder. This is the Mercury of Venus. Sprinkle this upon hot water, and it will flow together. It is sufficient if the cucurbite be at a white heat. From one pound of Venus ℥ii. and a half of Mercury are obtained; such Mercury is altogether thin and subtle, and is so soluble that it escapes in boiling water. Wherefore the said water is only tepid.

Mercury out of Mars.

Reduce Mars into coarse filings, but avoid chalybs, wherefore filings *de calcaribus* are the best. Take thereof ten pounds, and sprinkle well with salt water; leave for ten days or longer—the longer the better. Afterwards wash Mars in such a fashion as to avoid separating the turbidity. At length the water becomes clear, for the turbidity sinks to the bottom in the form of a red viscosity. Separate the water gradually by straining; keep the matter; dry it so that no excremental or gross part may remain. Take of this viscid matter ℥v., of pounded sulphur ℥xxx., compound delicately to the form of fine flour. Place it in the tigillum. Seal up securely, so that nothing may escape, and let the tigillum glow for an hour. Then let it cool, break it, and a grey powder will be found. Add thereto ℥i. of spume of glass, ℥ss. of sal ammoniac, and ℥v. of vitriol. Place on a smooth stone in a humid spot, and the water will flow out. But leave it for ten days; crush it in the hands, and you will have live Mercury, which is Mercury of Mars. Out of ten pounds of Mars one drachm and a half will be obtained. It is black and dull in colour.

Mercury of Jupiter.

Jupiter is calcined in the following fashion: Take filings corresponding in grossness to the back of a knife. Place in good distilled vinegar for twelve hours. Dry, and there will adhere a whitish cuticle. Remove this carefully with the hare's foot and set it apart. Again moisten, and again dry the filings; separate a similar cuticle a second time, and repeat this process till there is enough of the white calx. This take, and subject to all the processes to which the Calx of Lead is subjected, but avoiding the addition of Succinum,

or white vitriol. Put green copper rust in place thereof, and the work will be accomplished. Jupiter does not yield so much Mercury as Saturn, for one pound of the metal produces less than ʒvi.

Mercury of Saturn.

Take Villarensian Lead, or any other in which there is no silver, otherwise it must be purged in the following manner: If it has been calcined, let the calx boil for two whole hours in a lixivium composed of willow ashes, in which have been first dissolved one ounce of alumen and eight ounces of salt. In coction it is purged of all sulphur and other viscous matter. Calcine this lead in the following manner with salt: Melt the lead, pour it into a wooden receptacle, mix it well with common salt, and it will be reduced to a powder like sand. Cleanse the salt away ten or twelve times, till no saltness remains in the lead. Dry the calx gradually by continual agitation. When it has been dried, produce water as follows: Take of white vitriol, otherwise called succinum, five ounces, and one measure of vinegar, to six pounds of calx of lead. Dissolve the vitriol in vinegar. Sprinkle the calx of lead with this water, or perfectly saturate, or so place the calx in water that it protrudes above it. Leave it for thirty-six hours, so that it becomes an ashen-coloured powder. Then take a light marble vessel, the larger the better. Put it obliquely in a humid place, or in a wine cellar, and in front of it so place a wooden receptacle that it will receive whatever shall flow out. Calx of lead may be dissolved with three measures thereof. Again take this water and add to it a small quantity of fresh matter, which will concrete in the form of flour at the bottom. Place it in a similar marble, put a copper operculum over it, and make a small charcoal fire at the top of the operculum. When the said matter receives the heat Mercury comes forth; the fire is preserved in good order and grade until no more of the calx of lead remains. Therefore, Mercury of Saturn which flows into that wooden receptacle should be well washed and purified, so that if perchance crude Saturn flows down at the same time, as often happens, the same may be separated. From ten pounds of Saturn are made eight pounds, and often eight pounds and a half, of Mercury. Note.—Let not the fire in the operculum be too great or fierce, for otherwise much crude matter of Mercury will flow down at the same time. To the said marble apply a copper operculum corresponding to the size of the marble, which operculum should be at its sides and ends of the height of a spithmia, and should be shaped like a frying-pan. Let the front part be open for the passage of the Mercury. Then take greyish powder made from lead, together with succinous matter, and add to it the following water:

Take of Alum, ʒi.
of Salt Nitre, ʒii. and ss.
of Mountain Verdigris, ʒss.
of Rock Salt, ʒii.

Pound these substances minutely, saturate with stale wine, then distil, and there will proceed water of yellowish colour (golden, or crocus). To this water add semi-vitrified calx of lead, and the calx will sink at the bottom. Afterwards gradually pour off the water. Set the same apart, because it never turns putrid, and a centenarius of fire should therefore be maintained in an equal and moderate grade. If the crude Mercury flow forth at the same time, it remains after passing through the corium, and must be cooked out from the rest, for another confection, and thus thou hast Mercury of Saturn by the most simple way.

APPENDIX V.

DE TRANSMUTATIONIBUS METALLORUM.

IN the year 1581 a *Congeries Paracelsicæ Chemiæ de Transmutationibus Metallorum* appeared in octavo at Frankfort. In the notes to the *Aurora of the Philosophers*, *Concerning the Spirits of the Planets*, and elsewhere, some references have been already made to this work, which antedates by nearly a century the Geneva edition of the writings of Paracelsus. As its title indicates, it attempted to collect and digest into a single methodical treatise the whole substance of alchemy, as taught and practised by Paracelsus. While in many respects the digest was passably well done, and affords a tolerably representative notion of the opinions and experiments of Theophrastus, it is perhaps needless to say that, as it was included in the compass of a small volume, it is really very meagre. There is, however, one point in which it may be of value to the student. The *Congeries* is, in all probability, an adaptation of autograph manuscripts, and where its readings, which is by no means invariably the case, can be distinguished from editorial interpolations and extensions, they may be useful in so far as they vary from the readings of the Geneva folio and some other less carefully supervised editions. Perhaps, after all, the value, such as it is, of this point, is likely to be appreciated only by that very small circle of readers who believe that in ancient practical alchemy there are chemical secrets hidden which are unknown to the chemistry of to-day. For these the importance of a perfect text of the old alchemical processes, whether in the case of Paracelsus or in that of any other recognized master, is no doubt very high. In the present instance, the difficulty of distinguishing between the text and its editor, in so far as there are substantial variations, makes it needless to tabulate the readings, and the purpose of this appendix is of a far less pretentious character. There are a few paragraphs in the *Congeries* which it has not been found possible to identify in the collected editions of Paracelsus, or at least they offer very conspicuous differences, and these it is desirable to cite. The first has regard to the erection of the philosophical furnace, which *The Aurora of the Philosophers* affirms it is difficult to describe, at least as regards its form, while the specific direction contained in the third treatise, *Concerning the Spirits of the Planets*, only partially corresponds to what is stated in the following excerpt, which constitutes the fourth chapter of the *Congeries Paracelsicæ Chemiæ*. The

editorial argument which follows is also worth inclusion, as it is concerned with a matter which, in more than one instance, must have struck the reader of the present translation, namely, that it is not altogether easy, in every case, to harmonize Paracelsus with himself.

Concerning the Visible and Local Instruments: and first of all concerning the Spagyric Uterus.

Before we come to the matter, we must describe in order all the instruments, both actual and local, which are required in this art. We have said that the first actual instrument is the fire. The first local instrument is the furnace, designated by the ancients under the alchemical name of athanor. This takes the place of the uterus in spagyric generation.

Hermes Trismegistus, though he was not the inventor of this art, no less than Paracelsus in spagyric medicine, deserves to be called its restorer.

He asserts that this spagyric work, in which human philosophy reaches its extreme point, originated in the meditative contemplation of the greater world, intimating that the spagyric athanor ought to be constructed in exact imitation of the heaven and earth. In order to exercise the ingenious it will not be amiss to examine this comparison, and I think I shall be able thereby to profit my readers.

No philosopher will deny that the sun generates a sun like itself; but it is not every one who will acknowledge that this fœtus exists in the centre: least of all will those disciples of the philosophers who have no other knowledge of the Actnæan fire than that which comes from the fleshly eye, just like rustics in this respect. This terrene sun of the lower, or elementary, machinery is kindled by the fire of the higher sun. Just in the same way the centre of our matter is kindled by the centre of our world, or athanor, which is a fire, discharging after a manner the function of the natural sun.

Who does not see—I ask you, my brethren—that the form of the whole created universe has the similitude of a furnace, or, to speak more respectfully, the form of that which contains the matrix of a womb—the elements, that is to say, in which the seeds of the sun and the moon, cast down by the stars in their different influxes, are decayed, concocted, and finally digested for the generation of all things? These things are transparently clear, I will not say to philosophers, but even to boys, wherefore we will not insist upon them further.

Let us come, then, to the construction of our athanor.

First let a furnace be built seven spans in height, and let the rounded interior be the height of one span, the lower part a little broader than the upper part inside, and let it be polished, so that the coals, when put in, may not stick through the roughness of the surface, but may be able easily to fall down through the grating while they are being burnt. To equalise this let there be two or three holes, with which two or three lateral or uterine furnaces—or, if you like, a single one—shall correspond: the breadth of the mouths should be

four fingers. To every furnace let a brazen vessel be fitted, and these are to be filled with water. Let the others be shut up; as the egg in the hen, so is the glass in its uterus for the work of the magistery. Then, when you are going to work, and all has been carefully prepared, having broken coals into pieces the size of walnuts, or a little larger, fill up the turrets with these and kindle the fire at the door beneath; but let the top be kept shut, so that the coals at the top or in the middle may not be kindled, thus stirring up a heat that shall destroy the whole work, and burn everything together. When the heat shall appear to exceed what is proper, it can be controlled by applying a small brick or tile to the mouth; on the other hand, if it be too slack, let the coals be stirred up with an iron rod beneath the grating. The fire can be still more readily controlled by registers (which are called governors). Experience teaches the uses of those things which are necessary in preparations before you have arrived at this stage. The fire, then, having been regulated to a just proportion, as Nature teaches in all things, the heat will cause a fermentation, and by-and-bye this will affect the matter lying hid in the egg.

Henceforwards, just as the sun in the great universe shines, illuminates, and gives life to the rest of the stars and to the elements, so the spagyric fire, illuminating its athanor, with all the instruments, and warming the sea-bath, acts just like a hen which hatches its animated egg.

But I hear a giant roaring like a lion against the furnace, and seeking Paracelsus to devour him. "See," says he, "how he contradicts himself! Just now he told us, and that with considerable severity, not to build a fire with coals; now he is teaching the use of coals for this art of his!" You have touched the matter, no doubt, but only in the same way as you have judged that the other writings of Paracelsus are contradictory. Open the other eye, my one-eyed friend, or you will act the part of a blind man passing a judgment about colours. Can you not see what is the meaning of this particle—simple and without middle meaning—added to the interdiction of coals? Do you not see how Paracelsus, though dead, answers you and his other calumniators in his living works, saying—"You, who adjudge me to err, yourselves err, even when judged by yourselves. Have I not often admonished you, and those like you, envious people that you are, in almost all my works, not to pass over even a little word which you have not thoroughly appropriated, lest the same thing happens to you, giants, fighting with my pigmy homunculus, as formerly happened to Goliath fighting with the boy David? Take care, I say, lest you collide with this stone of ours as the great mystery, and sink down with it to the abyss whereto you would consign me!" Thus seems Paracelsus to thunder forth in his tomb. We must not, my brothers, speak unfairly of the dead, even of those whose deserts were small. Let them all remain at rest, and all await their deeds. It is easy to carp, but to avoid judgment to-day is difficult; at the last it will be impossible. What are you which I am not, or what am I which you are not? Again,

what has happened to both of us save that which may occur to another, namely, to err? We are all men; and error happens to men more than it does to brutes without reason, who are stirred solely by the promptings of Nature. I confess that I err in very many things, and you err. It is yours to confess it, and mine to admonish, not to judge. Be it your duty, as it is mine, not enviously to disclose those things of your brothers which have not been duly done, before that, with a certain amount of modesty, you have admonished him according to the discipline of true philosophy, otherwise neither you, nor he, nor I, if we act in a contrary manner, are worthy of the name of philosophy. But this philosophic discipline (alas, that it should be so!) is impugned even by the most learned: and so much has the dogma of heathen philosophers prevailed, being at the present day very celebrated among these people, that they do not take a comprehensive glance at what is without and within; they display nothing beyond a mere ambition for honour and renown. This is the chief end of their study and toil. Hence it has come about that everybody tries to get credit for himself by tripping up or blackening the character of somebody else. But these wretched people do not consider that no great ill can be done which will not incur a greater punishment still, at least if we are all foolish together, and nobody even approaches wisdom. Many are wise, a few very wise, who still preserve no medium. Let us look to it, then, lest what we parade as wisdom may, even in this our day and generation, be turned by the good God into open folly, and that through our own efforts. If, then, we have erred at all, and our own conscience tells us that we have done so, by which error on our part it seems only too likely that we may mislead others, let us in the presence of God and men retract, and that without reserve. The wisest of men are ever ready to acknowledge their common error, but stubborn men and fools are not ready to do this. Every made course seems the straight road for them, and *vice versâ*.

The following passage appears as a sequel to the *Treasure of Treasures*, which, in a somewhat modified form, occupies the thirteenth chapter of the *Congeries*. It may be entitled

The Phœnix of the Philosophers.

The exposition of the cabalists has, under the name of the Phœnix, that it is the Flying Eagle, whose feathers fly without the wind, and bear the body of the phœnix to its nest, in which is nourished the element of fire. Its young peck out their mother's eyes with their beak, and there is produced a whiteness in its separated sphere. In this consists the life of its heart and the balsam of its intestines. According to the Cabalists this refers to the sulphur of cinnabar, to which Paracelsus alludes. Very lately, when electrum was being treated, I referred the reader to cinnabar, and not without cause, since it has the greatest affinity therewith. What is cinnabar but a composition or mixture of two minerals, sulphur and quicksilver? What, too, is electrum

but a mixture of two or more, whether minerals or metals? The sulphur of Sol, therefore, joined artificially with philosophic Mercury of Luna,— why should not this be electrum, why not cinnabar? Whether each is made by Nature or by chemistry, the component parts do not differ.

The last citation which it will be necessary to make is the fifteenth chapter of the *Congeries.* It is an exceedingly concise abridgment of the fifth book of the *Archidoxies* as regards the section on the Stone of the Philosophers, and it is inserted at this point as an illustration of the method of the editor. It is called

A Very Brief Process for Attaining the Stone.

I neither am nor wish to be a teacher or a follower of that Stone which is taught in different ways by very many. Leaving, therefore, this process for its attainment, I have proposed to describe in very few words that which has been discovered by me through practice and experience. This, no less than the other, affects the bodies of men, though it is not prepared by the same process. Take, then, mercury, otherwise the element of mercury, and separate the pure from the impure. Afterwards let it be reverberated even to whiteness, and sublimate this with sal ammoniac until it is resolved. Let it be calcined and dissolved again, and digested in a pelican for one month, being afterwards coagulated into a body. This is no longer burnt, or in any way consumed, but remains in the same condition. The bodies penetrated by it are permanent in the cineritium, so that they cannot be reduced to nothing or be altered; but it takes away, as we have often said, all superfluous qualities both from sensible and insensible things.

Although I have here set down a very brief way and process, it requires long labour, and one that is involved in many intricate circumstances; demanding, at the same time, an operator who is unassailable by fatigue, and in the highest degree diligent and expert.

APPENDIX VI.

THE VATICAN MANUSCRIPT OF PARACELSUS.

IN the nineteenth chapter of his *Rituel de la Haute Magic*, Eliphas Levi observes that "amongst the rare and precious books which contain the mysteries of the Great Arcanum, there must be placed in the first rank the *Chemical Pathway*, or *Manual* of Paracelsus, which contains all the mysteries of demonstrative physics and of the most secret cabala. This manuscript work, unique and priceless, exists in the library of the Vatican. A transcription of it was made by Sendivogius, and this was made use of by Baron Tschoudy for the compilation of the Hermetic Catechism contained in his work entitled *The Burning Star*. This catechism, which we point out to instructed cabalists, as a substitute for the incomparable treatise of Paracelsus, contains all the veritable principles of the great work, after so satisfactory and explicit a manner that a person must be absolutely wanting in that quality of intelligence which is requisite for ocultism if they fail to attain the absolute truth when they have studied it." The manuscript to which reference is made in this interesting citation, is still an unedited treasure, although, as will be seen in the next appendix, there has been at least one *Manual* attributed to Paracelsus, which has been in print for four centuries. In the absence of the Vatican treatise, the student who desires to make acquaintance with a work of Paracelsus which adepts in the Art of Alchemy seem to prefer before all published writings of the same author, must make shift with the Hermetic Catechism, as suggested by Eliphas Levi. He will find it an exceedingly, succinct, and simple presentation of the fundamental alchemical theories. Though it may not initiate the reader, whatever the quality of his intelligence, into the mystery of the Great Arcanum, it is, in its way, very lucid and direct. Whether this merit belongs to Paracelsus or his interpreter, is an unprofitable subject of speculation in the absence of the original text, which few persons have had the opportunity or disposition to to consult. The work of Baron Tschoudy was published in two volumes at Hamburg, in 1785, and later on there was another edition at Paris. Having regard to its period, it is a sensible, though somewhat romantic, attempt to trace back Free Masonry to its historical origin, while, over and above this, it constitutes a valuable hand-book of the analogies which subsist between that system and Hermetic science, more especially Alchemy. The catechism itself,

which is the most important section of the *Burning Star*, teems with analogies of this kind, which, of course, are the creation of the editor, and are suppressed in the translation which follows, in part because they exceed the intention of the present work, and in part for other reasons.

A Short Catechism of Alchemy
Founded on the Manual of Paracelsus preserved in the Vatican Library.

Q. What is the chief study of a Philosopher?

A. It is the investigation of the operations of Nature.

Q. What is the end of Nature?

A. God, Who is also its beginning.

Q. Whence are all things derived?

A. From one and indivisible Nature.

Q. Into how many regions is Nature separated?

A. Into four palmary regions.

Q. Which are they?

A. The dry, the moist, the warm, and the cold, which are the four elementary qualities, whence all things originate.

Q. How is Nature differentiated?

A. Into male and female.

Q. To what may we compare Nature?

A. To Mercury.

Q. Give a concise definition of Nature.

A. It is not visible, though it operates visibly; for it is simply a volatile spirit, fulfilling its office in bodies, and animated by the universal spirit—the divine breath, the central and universal fire, which vivifies all things that exist.

Q. What should be the qualities possessed by the examiners of Nature?

A. They should be like unto Nature herself. That is to say, they should be truthful, simple, patient, and persevering.

Q. What matters should subsequently engross their attention?

A. The philosophers should most carefully ascertain whether their designs are in harmony with Nature, and of a possible and attainable kind; if they would accomplish by their own power anything that is usually performed by the power of Nature, they must imitate her in every detail.

Q. What method must be followed in order to produce something which shall be developed to a superior degree than Nature herself develops it.

A. The manner of its improvement must be studied, and this is invariably operated by means of a like nature. For example, if it be desired to develop the intrinsic virtue of a given metal beyond its natural condition, the chemist must avail himself of the metallic nature itself, and must be able to discriminate between its male and female differentiations.

Q. Where does the metallic nature store her seeds?

A. In the four elements.

Q. With what materials can the philosopher alone accomplish anything?

A. With the germ of the given matter; this is its elixir or quintessence, more precious by far, and more useful, to the artist, than is Nature herself. Before the philosopher has extracted the seed, or germ, Nature, in his behalf, will be ready to perform her duty.

Q. What is the germ, or seed, of any substance?

A. It is the most subtle and perfect decoction and digestion of the substance itself; or, rather, it is the Balm of Sulphur, which is identical with the Radical Moisture of Metals.

Q. By what is this seed, or germ, engendered?

A. By the four elements, subject to the will of the Supreme Being, and through the direct intervention of the imagination of Nature.

Q. After what manner do the four elements operate?

A. By means of an incessant and uniform motion, each one, according to its quality, depositing its seed in the centre of the earth, where it is subjected to action and digested, and is subsequently expelled in an outward direction by the laws of movement.

Q. What do the philosophers understand by the centre of the earth?

A. A certain void place where nothing may repose, and the existence of which is assumed.

Q. Where, then, do the four elements expel and deposit their seeds?

A. In the ex-centre, or in the margin and circumference of the centre, which, after it has appropriated a portion, casts out the surplus into the region of excrement, scoriæ, fire, and formless chaos.

Q. Illustrate this teaching by an example.

A. Take any level table, and set in its centre a vase filled with water; surround the vase with several things of various colours, especially salt, taking care that a proper distance intervenes between them all. Then pour out the water from the vase, and it will flow in streams here and there; one will encounter a substance of a red colour, and will assume a tinge of red; another will pass over the salt, and will contract a saline flavour; for it is certain that water does not modify the places which it traverses, but the diverse characteristics of places change the nature of water. In the same way the seed which is deposited by the four elements at the centre of the earth is subject to a variety of modifications in the places through which it passes, so that every existing substance is produced in the likeness of its channel, and when a seed on its arrival at a certain point encounters pure earth and pure water, a pure substance results, but the contrary in an opposite case.

Q. After what manner do the elements procreate this seed?

A. In order to the complete elucidation of this point, it must be observed that there are two gross and heavy elements and two that are volatile in character. Two, in like manner, are dry and two humid, one out of the four

being actually excessively dry, and the other excessively moist. They are also masculine and feminine. Now, each of them has a marked tendency to reproduce its own species within its own sphere. Moreover, they are never in repose, but are perpetually interacting, and each of them separates, of and by itself, the most subtle portion thereof. Their general place of meeting is in the centre, even the centre of the *Archeus*, that servant of Nature, where coming to mix their several seeds, they agitate and finally expel them to the exterior.

Q. What is the true and the first matter of all metals?

A. The first matter, properly so called, is dual in its essence, or is in itself of a twofold nature; one, nevertheless, cannot create a metal without the concurrence of the other. The first and the palmary essence is an aerial humidity, blended with a warm air, in the form of a fatty water, which adheres to all substances indiscriminately, whether they are pure or impure.

Q. How has this humidity been named by Philosophers?

A. Mercury.

Q. By what is it governed?

A. By the rays of the Sun and Moon.

Q. What is the second matter?

A. The warmth of the earth—otherwise, that dry heat which is termed Sulphur by the Philosophers.

Q. Can the entire material body be converted into seed?

A. Its eight-hundredth part only—that, namely, which is secreted in the centre of the body in question, and may, for example, be seen in a grain of wheat.

Q. Of what use is the bulk of the matter as regards its seed?

A. It is useful as a safeguard against excessive heat, cold, moisture, or aridity, and, in general, all hurtful inclemency, against which it acts as an envelope.

Q. Would those artists who pretend to reduce the whole matter of any body into seed derive any advantage from the process, supposing it were possible to perform it?

A. None; on the contrary, their labour would be wholly unproductive, because nothing that is good can be accomplished by a deviation from natural methods.

Q. What, therefore, should be done?

A. The matter must be effectively separated from its impurities, for there is no metal, how pure soever, which is entirely free from imperfections, though their extent varies. Now all superfluities, cortices, and scoriæ must be peeled off and purged out from the matter in order to discover its seed.

Q. What should receive the most careful attention of the Philosopher?

A. Assuredly, the end of Nature, and this is by no means to be looked for in the vulgar metals, because, these having issued already from the hands of the fashioner, it is no longer to be found therein.

Q. For what precise reason?

A. Because the vulgar metals, and chiefly gold, are absolutely dead, while ours, on the contrary, are absolutely living, and possess a soul.

Q. What is the life of metals?

A. It is no other substance than fire, when they are as yet imbedded in the mines.

Q. What is their death?

A. Their life and death are in reality one principle, for they die, as they live, by fire, but their death is from a fire of fusion.

Q. After what manner are metals conceived in the womb of the earth?

A. When the four elements have developed their power or virtue in the centre of the earth, and have deposited their seed, the *Archeus* of Nature, in the course of a distillatory process, sublimes them superficially by the warmth and energy of the perpetual movement.

Q. Into what does the wind resolve itself when it is distilled through the pores of the earth?

A. It resolves itself into water, whence all things spring; in this state it is merely a humid vapour, out of which there is subsequently evolved the principiated principle of all substances, which also serves as the first matter of the Philosophers.

Q. What then is this principiated principle, which is made use of as the first matter by the Children of Knowledge in the philosophic achievement?

A. It is this identical matter, which, the moment it is conceived, receives a permanent and unchangeable form.

Q. Are Saturn, Jupiter, Mars, Venus, the Sun, the Moon, etc., separately endowed with individual seed?

A. One is common to them all; their differences are to be accounted for by the locality from which they are derived, not to speak of the fact that Nature completes her work with far greater rapidity in the procreation of silver than in that of gold, and so of the other metals, each in its own proportion.

Q. How is gold formed in the bowels of the earth?

A. When this vapour, of which we have spoken, is sublimed in the centre of the earth, and when it has passed through warm and pure places, where a certain sulphureous grease adheres to the channels, then this vapour, which the Philosophers have denominated their Mercury, becomes adapted and joined to this grease, which it sublimes with itself; from such amalgamation there is produced a certain unctuousness, which, abandoning the vaporous form, assumes that of grease, and is sublimised in other places, which have been cleansed by this preceding vapour, and the earth whereof has consequently been rendered more subtle, pure, and humid; it fills the pores of this earth, is joined thereto, and gold is produced as a result.

Q. How is Saturn engendered?

A. It occurs when the said unctuosity, or grease, passes through places which are totally impure and cold.

Q. How is Venus brought forth?

A. She is produced in localities where the earth itself is pure, but is mingled with impure sulphur.

Q. What power does the vapour, which we have recently mentioned, possess in the centre of the earth?

A. By its continual progress it has the power of perpetually rarefying whatsoever is crude and impure, and of successively attracting to itself all that is pure around it.

Q. What is the seed of the first matter of all things?

A. The first matter of things, that is to say, the matter of principiating principles is begotten by Nature, without the assistance of any other seed; in other words, Nature receives the matter from the elements, whence it subsequently brings forth the seed.

Q. What, absolutely speaking, is therefore the seed of things?

A. The seed in a body is no other thing than a congealed air, or a humid vapour, which is useless except it be dissolved by a warm vapour.

Q. How is the generation of seed comprised in the metallic kingdom?

A. By the artifice of *Archeus* the four elements, in the first generation of Nature, distil a ponderous vapour of water into the centre of the earth; this is the seed of metals, and it is called Mercury, not on account of its essence, but because of its fluidity, and the facility with which it will adhere to each and every thing.

Q. Why is this vapour compared to sulphur?

A. Because of its internal heat.

Q. From what species of Mercury are we to conclude that the metals are composed?

A. The reference is exclusively to the Mercury of the Philosophers, and in no sense to the common or vulgar substance, which cannot become a seed, seeing that, like other metals, it already contains its own seed.

Q. What, therefore, must actually be accepted as the subject of our matter?

A. The seed alone, otherwise the fixed grain, and not the whole body, which is differentiated into Sulphur, or living male, and into Mercury, or living female.

Q. What operation must be afterwards performed?

A. They must be joined together, so that they may form a germ, after which they will proceed to the procreation of a fruit which is conformed to their nature.

Q. What is the part of the artist in this operation?

A. The artist must do nothing but separate that which is subtle from that which is gross.

Q. To what, therefore, is the whole philosophic combination reduced?

A. The development of one into two, and the reduction of two into one, and nothing further.

Q. Whither must we turn for the seed and life of metals and minerals?

A. The seed of minerals is properly the water which exists in the centre and the heart of the minerals.

Q. How does Nature operate by the help of Art?

A. Every seed, whatsoever its kind, is useless, unless by Nature or Art it is placed in a suitable matrix, where it receives its life by the coction of the germ, and by the congelation of the pure particle, or fixed grain.

Q. How is the seed subsequently nourished and preserved?

A. By the warmth of its body.

Q. What is therefore performed by the artist in the mineral kingdom?

A. He finishes what cannot be finished by Nature on account of the crudity of the air, which has permeated the pores of all bodies by its violence, but on the surface and not in the bowels of the earth.

Q. What correspondence have the metals among themselves?

A. It is necessary for a proper comprehension of the nature of this correspondence to consider the position of the planets, and to pay attention to Saturn, which is the highest of all, and then is succeeded by Jupiter, next by Mars, the Sun, Venus, Mercury, and, lastly, by the Moon. It must be observed that the influential virtues of the planets do not ascend but descend, and experience teaches us that Mars can be easily converted into Venus, not Venus into Mars, which is of a lower sphere. So, also, Jupiter can be easily transmuted into Mercury, because Jupiter is superior to Mercury, the one being second after the firmament, the other second above the earth, and Saturn is highest of all, while the Moon is lowest. The Sun enters into all, but it is never ameliorated by its inferiors. It is clear that there is a large correspondence between Saturn and the Moon, in the middle of which is the Sun; but to all these changes the Philosopher should strive to administer the Sun.

Q. When the Philosophers speak of gold and silver, from which they extract their matter, are we to suppose that they refer to the vulgar gold and silver?

A. By no means; vulgar silver and gold are dead, while those of the Philosophers are full of life.

Q. What is the object of research among the Philosophers?

A. Proficiency in the art of perfecting what Nature has left imperfect in the mineral kingdom, and the attainment of the treasure of the Philosophical Stone.

Q. What is this Stone?

A. The Stone is nothing else than the radical humidity of the elements, perfectly purified and educed into a sovereign fixation, which causes it to perform such great things for health, life being resident exclusively in the humid radical.

Q. In what does the secret of accomplishing this admirable work consist?

A. It consists in knowing how to educe from potentiality into activity the innate warmth, or the fire of Nature, which is enclosed in the centre of the radical humidity.

Q. What are the precautions which must be made use of to guard against failure in the work?

A. Great pains must be taken to eliminate excrements from the matter, and to conserve nothing but the kernel, which contains all the virtue of the compound.

Q. Why does this medicine heal every species of disease?

A. It is not on account of the variety of its qualities, but simply because it powerfully fortifies the natural warmth, which it gently stimulates, while other physics irritate it by too violent an action.

Q. How can you demonstrate to me the truth of the art in the matter of the tincture?

A. Firstly, its truth is founded on the fact that the physical powder, being composed of the same substance as the metals, namely, quicksilver, has the faculty of combining with these in fusion, one nature easily embracing another which is like itself. Secondly, seeing that the imperfection of the base metals is owing to the crudeness of their quicksilver, and to that alone, the physical powder, which is a ripe and decocted quicksilver, and, in itself a pure fire, can easily communicate to them its own maturity, and can transmute them into its nature, after it has attracted their crude humidity, that is to say, their quicksilver, which is the sole substance that transmutes them, the rest being nothing but scoriæ and excrements, which are rejected in projection.

Q. What road should the Philosopher follow that he may attain to the knowledge and execution of the physical work?

A. That precisely which was followed by the Great Architect of the Universe in the creation of the world, by observing how the chaos was evolved.

Q. What was the matter of the chaos?

A. It could be nothing else than a humid vapour, because water alone enters into all created substances, which all finish in a strange term, this term being a proper subject for the impression of all forms.

Q. Give me an example to illustrate what you have just stated.

A. An example may be found in the special productions of composite substances, the seeds of which invariably begin by resolving themselves into a certain humour, which is the chaos of the particular matter, whence issues, by a kind of irradiation, the complete form of the plant. Moreover, it should be observed that Holy Scripture makes no mention of anything except water as the material subject whereupon the Spirit of God brooded, nor of anything except light as the universal form of things.

Q. What profit may the Philosopher derive from these considerations, and what should he especially remark in the method of creation which was pursued by the Supreme Being?

A. In the first place he should observe the matter out of which the world was made; he will see that out of this confused mass, the Sovereign Artist began by extracting light, that this light in the same moment dissolved the

darkness which covered the face of the earth, and that it served as the universal form of the matter. He will then easily perceive that in the generation of all composite substances, a species of irradiation takes place, and a separation of light and darkness, wherein Nature is an undeviating copyist of her Creator. The Philosopher will equally understand after what manner, by the action of this light, the empyrean, or firmament which divides the superior and inferior waters, was subsequently produced; how the sky was studded with luminous bodies; and how the necessity for the moon arose, which was owing to the space intervening between the things above and the things below; for the moon is an intermediate torch between the superior and the inferior worlds, receiving the celestial influences and communicating them to the earth. Finally he will understand how the Creator, in the gathering of the waters, produced dry land.

Q. How many heavens can you enumerate?

A. Properly there is one only, which is the firmament that divides the waters from the waters. Nevertheless, three are admitted, of which the first is the space that is above the clouds. In this heaven the waters are rarefied, and fall upon the fixed stars, and it is also in this space that the planets and wandering stars perform their revolutions. The second heaven is the firmament of the fixed stars, while the third is the abode of the super-celestial waters.

Q. Why is the rarefaction of the waters confined to the first heaven?

A. Because it is in the nature of rarefied substances to ascend, and because God, in His eternal laws, has assigned its proper sphere to everything.

Q. Why does each celestial body invariably revolve about an axis?

A. It is by reason of the primeval impetus which it received, and by virtue of the same law which will cause any heavy substance suspended from a thread to turn with the same velocity, if the power which impels its motion be always equal.

Q. Why do the superior waters never descend?

A. Because of their extreme rarefaction. It is for this reason that a skilled chemist can derive more profit from the study of rarefaction than from any other science whatsoever.

Q. What is the matter of the firmament?

A. It is properly air, which is more suitable than water as a medium of light.

Q. After the separation of the waters from the dry earth, what was performed by the Creator to originate generation?

A. He created a certain light which was destined for this office; He placed it in the central fire, and moderated this fire by the humidity of water and by the coldness of earth, so as to keep a check upon its energy and adapt it to His design.

Q. What is the action of this central fire?

A. It continually operates upon the nearest humid matter, which it exalts into vapour; now this vapour is the mercury of Nature and the first matter of the three kingdoms.

Q. How is the sulphur of Nature subsequently formed?

A. By the interaction of the central fire and the mercurial vapour.

Q. How is the salt of the sea produced?

A. By the action of the same fire upon aqueous humidity, when the aerial humidity, which is contained therein, has been exhaled.

Q. What should be done by a truly wise Philosopher when he has once mastered the foundation and the order in the procedure of the Great Architect of the Universe in the construction of all that exists in Nature?

A. He should, as far as may be possible, become a faithful copyist of his Creator. In the physical chaos he should make his chaos such as the original actually was; he should separate the light from the darkness: he should form his firmament for the separation of the waters which are above from the waters which are below, and should successively accomplish, point by point, the entire sequence of the creative act.

Q. With what is this grand and sublime operation performed?

A. With one single corpuscle, or minute body, which, so to speak, contains nothing but *fæces*, filth, and abominations, but whence a certain tenebrous and mercurial humidity is extracted, which contains in itself all that is required by the Philosopher, because, as a fact, he is in search of nothing but the true Mercury.

Q. What kind of mercury, therefore, must he make use of in performing the work?

A. Of a mercury which, as such, is not found on the earth, but is extracted from bodies, yet not from vulgar mercury, as it has been falsely said.

Q. Why is the latter unfitted to the needs of our work?

A. Because the wise artist must take notice that vulgar mercury has an insufficient quantity of sulphur, and he should consequently operate upon a body created by Nature, in which Nature herself has united the sulphur and mercury that it is the work of the artist to separate.

Q. What must he subsequently do?

A. He must purify them and join them anew together.

Q. How do you denominate the body of which we have been speaking?

A. The RUDE STONE, or Chaos, or Iliaste, or Hyle—that confused mass which is known but universally despised.

Q. As you have told me that Mercury is the one thing which the Philosopher must absolutely understand, will you give me a circumstantial description of it, so as to avoid misconception?

A. In respect of its nature, our Mercury is dual—fixed and volatile; in regard to its motion, it is also dual, for it has a motion of ascent and of descent; by that of descent, it is the influence of plants, by which it stimulates the drooping fire of Nature, and this is its first office previous to

congelation. By its ascensional movement, it rises, seeking to be purified, and as this is after congelation, it is considered to be the radical moisture of substances, which, beneath its vile scoriæ, still preserves the nobility of its first origin.

Q. How many species of moisture do you suppose to be in each composite thing?

A. There are three—the Elementary, which is properly the vase of the other elements; the Radical, which, accurately speaking, is the oil, or balm, in which the entire virtue of the subject is resident—lastly, the Alimentary, the true natural dissolvent, which draws up the drooping internal fire, causing corruption and blackness by its humidity, and fostering and sustaining the subject.

Q. How many species of Mercury are there known to the Philosophers?

A. The Mercury of the Philosophers may be regarded under four aspects; the first is entitled the Mercury of bodies, which is actually their concealed seed; the second is the Mercury of Nature, which is the Bath or Vase of the Philosophers, otherwise the humid radical; to the third has been applied the designation, Mercury of the Philosophers, because it is found in their laboratory and in their minera. It is the sphere of Saturn; it is the Diana of the Wise; it is the true salt of metals, after the acquisition of which the true philosophic work may be truly said to have begun. In its fourth aspect, it is called Common Mercury, which yet is not that of the Vulgar, but rather is properly the true air of the Philosophers, the true middle substance of water, the true secret and concealed fire, called also common fire, because it is common to all mineræ, for it is the substance of metals, and thence do they derive their quantity and quality.

Q. How many operations are comprised in our work?

A. There is one only, which may be resolved into sublimation, and sublimation, according to Geber, is nothing other than the elevation of the dry matter by the mediation of fire, with adherence to its own vase.

Q. What precaution should be taken in reading the Hermetic Philosophers?

A. Great care, above all, must be observed upon this point, lest what they say upon the subject should be interpreted literally and in accordance with the mere sound of the words: For the letter killeth, but the spirit giveth life.

Q. What books should be read in order to have an acquaintance with our science?

A. Among the ancients, all the works of Hermes should especially be studied; in the next place, a certain book, entitled *The Passage of the Red Sea*, and another, *The Entrance into the Promised Land.* Paracelsus also should be read before all among elder writers, and, among other treatises, his *Chemical Pathway*, or the *Manual* of Paracelsus, which contains all the mysteries of demonstrative physics and the most arcane Kabbalah. This rare and unique manuscript work exists only in the Vatican Library, but Sendivogius had the

good fortune to take a copy of it, which has helped in the illumination of the sages of our order. Secondly, Raymond Lully must be read, and his *Vade Mecum* above all, his dialogue called the *Tree of Life*, his testament, and his codicil. There must, however, be a certain precaution exercised in respect to the two last, because, like those of Geber, and also of Arnold de Villanova, they abound in false recipes and futile fictions, which seem to have been inserted with the object of more effectually disguising the truth from the ignorant. In the third place, the *Turba Philosophorum*, which is a collection of ancient authors, contains much that is materially good, though there is much also which is valueless. Among mediæval writers Zachary, Trevisan, Roger Bacon, and a certain anonymous author, whose book is entitled *The Philosophers*, should be held especially high in the estimation of the student. Among moderns the most worthy to be prized are John Fabricius, François de Nation, and Jean D'Espagnet, who wrote *Physics Restored*, though, to say the truth, he has imported some false precepts and fallacious opinions into his treatise.

Q. When may the Philosopher venture to undertake the work?

A. When he is, theoretically, able to extract, by means of a crude spirit, a digested spirit out of a body in dissolution, which digested spirit he must again rejoin to the vital oil.

Q. Explain me this theory in a clearer manner.

A. It may be demonstrated more completely in the actual process; the great experiment may be undertaken when the Philosopher, by the medium of a vegetable menstruum, united to a mineral menstruum, is qualified to dissolve a third essential menstruum, with which menstruums united he must wash the earth, and then exalt it into a celestial quintessence, to compose the sulphureous thunderbolt, which instantaneously penetrates substances and destroys their excrements.

Q. Have those persons a proper acquaintance with Nature who pretend to make use of vulgar gold for seed, and of vulgar mercury for the dissolvent, or the earth in which it should be sown?

A. Assuredly not, because neither the one nor the other possesses the external agent—gold, because it has been deprived of it by decoction, and mercury because it has never had it.

Q. In seeking this auriferous seed elsewhere than in gold itself, is there no danger of producing a species of monster, since one appears to be departing from Nature?

A. It is undoubtedly true that in gold is contained the auriferous seed, and that in a more perfect condition than it is found in any other body; but this does not force us to make use of vulgar gold, for such a seed is equally found in each of the other metals, and is nothing else but that fixed grain which Nature has infused in the first congelation of mercury, all metals having one origin and a common substance, as will be ultimately unveiled to those who become worthy of receiving it by application and assiduous study.

Q. What follows from this doctrine?

A. It follows that, although the seed is more perfect in gold, it may be extracted much more easily from another body than from gold itself, other bodies being more open, that is to say, less digested, and less restricted in their humidity.

Q. Give me an example taken from Nature.

A. Vulgar gold may be likened to a fruit which, having come to a perfect maturity, has been cut off from its tree, and though it contains a most perfect and well-digested seed, notwithstanding, should anyone set it in the ground, with a view to its multiplication, much time, trouble, and attention will be consumed in the development of its vegetative capabilities. On the other hand, if a cutting, or a root, be taken from the same tree, and similarly planted, in a short time, and with no trouble, it will spring up and produce much fruit.

Q. Is it necessary that an amateur of this science should understand the formation of metals in the bowels of the earth if he wishes to complete his work?

A. So indispensable is such a knowledge that should anyone fail, before all other studies, to apply himself to its attainment, and to imitate Nature point by point therein, he will never succeed in accomplishing anything but what is worthless.

Q. How, then, does Nature deposit metals in the bowels of the earth, and of what does she compose them?

A. Nature manufactures them all out of sulphur and mercury, and forms them by their double vapour.

Q. What do you mean by this double vapour, and how can metals be formed thereby?

A. In order to a complete understanding of this question, it must first be stated that mercurial vapour is united to sulphureous vapour in a cavernous place which contains a saline water, which serves as their matrix. Thus is formed, firstly, the Vitriol of Nature; secondly, by the commotion of the elements, there is developed out of this Vitriol of Nature a new vapour, which is neither mercurial nor sulphureous, yet is allied to both these natures, and this, passing through places to which the grease of sulphur adheres, is joined therewith, and out of their union a glutinous substance is produced, otherwise, a formless mass, which is permeated by the vapour that fills these cavernous places. By this vapour, acting through the sulphur it contains, are produced the perfect metals, provided that the vapour and the locality are pure. If the locality and the vapour are impure, imperfect metals result. The terms perfection and imperfection have reference to various degrees of concoction.

Q. What is contained in this vapour?

A. A spirit of light and a spirit of fire, of the nature of the celestial bodies, which properly should be considered as the form of the universe.

Q. What does this vapour represent?

A. This vapour, thus impregnated by the universal spirit, represents, in a fairly complete way, the original Chaos, which contained all that was required for the original creation, that is, universal matter and universal form.

Q. And one cannot, notwithstanding, make use of vulgar mercury in the process?

A. No, because vulgar mercury, as already made plain, is devoid of external agent.

Q. Whence comes it that common mercury is without its external agent?

A. Because in the exaltation of the double vapour, the commotion has been so great and searching, that the spirit, or agent, has evaporated, as occurs, with very close similarity, in the fusion of metals. The result is that the unique mercurial part is deprived of its masculine or sulphureous agent, and consequently can never be transmuted into gold by Nature.

Q. How many species of gold are distinguished by the Philosophers?

A. Three sorts :—Astral Gold, Elementary Gold, and Vulgar Gold.

Q. What is astral gold?

A. Astral Gold has its centre in the sun, which communicates it by its rays to all inferior beings. It is an igneous substance, which receives a continual emanation of solar corpuscles that penetrate all things sentient, vegetable, and mineral.

Q. What do you refer to under the term Elementary Gold?

A. This is the most pure and fixed portion of the elements, and of all that is composed of them. All sublunary beings included in the three kingdoms contain in their inmost centre a precious grain of this elementary gold.

Q. Give me some description of Vulgar Gold?

A. It is the most beautiful metal of our acquaintance, the best that Nature can produce, as perfect as it is unalterable in itself.

Q. Of what species of gold is the Stone of the Philosophers?

A. It is of the second species, as being the most pure portion of all the metallic elements after its purification, when it is termed living philosophical gold. A perfect equilibrium and equality of the four elements enter into the Physical Stone, and four things are indispensable for the accomplishment of the work, namely, composition, allocation, mixture, and union, which, once performed according to the rules of art, will beget the lawful Son of the Sun, and the Phœnix which eternally rises out of its own ashes.

Q. What is actually the living gold of the Philosophers?

A. It is exclusively the fire of Mercury, or that igneous virtue, contained in the radical moisture, to which it has already communicated the fixity and the nature of the sulphur, whence it has emanated, the mercurial character of the whole substance of philosophical sulphur permitting it to be alternatively termed mercury.

Q. What other name is also given by the Philosophers to their living gold?

A. They also term it their living sulphur, and their true fire; they recognize its existence in all bodies, and there is nothing that can subsist without it.

Q. Where must we look for our living gold, our living sulphur, and our true fire?

A. In the house of Mercury.

Q. By what is this fire nourished?

A. By the air.

Q. Give me a comparative illustration of the power of this fire?

A. To exemplify the attraction of this interior fire, there is no better comparison than that which is derived from the thunderbolt, which originally is simply a dry, terrestrial exhalation, united to a humid vapour. By exaltation, and by assuming the igneous nature, it acts on the humidity which is inherent to it; this it attracts to itself, transmutes it into its own nature, and then rapidly precipitates itself to the earth, where it is attracted by a fixed nature which is like unto its own.

Q. What should be done by the Philosopher after he has extracted his Mercury?

A. He should develop it from potentiality into activity.

Q. Cannot Nature perform this of herself?

A. No; because she stops short after the first sublimation, and out of the matter which is thus disposed do the metals engender.

Q. What do the Philosophers understand by their gold and silver?

A. The Philosophers apply to their Sulphur the name of Gold, and to their Mercury the name of Silver.

Q. Whence are they derived?

A. I have already stated that they are derived from a homogeneous body wherein they are found in great abundance, whence also Philosophers know how to extract both by an admirable, and entirely philosophical, process.

Q. When this operation has been duly performed, to what other point of the practice must they next apply themselves?

A. To the confection of the philosophical amalgam, which must be done with great care, but can only be accomplished after the preparation and sublimation of the Mercury.

Q. When should your matter be combined with the living gold?

A. During the period of amalgamation only, that is to say, Sulphur is introduced into it by means of the amalgamation, and thenceforth there is one substance; the process is shortened by the addition of Sulphur, while the tincture at the same time is augmented.

Q. What is contained in the centre of the radical moisture?

A. It contains and conceals Sulphur, which is covered with a hard rind.

Q. What must be done to apply it to the Great Work?

A. It must be drawn out of its bonds with consummate skill, and by the method of putrefaction.

Q. Does Nature, in her work in the mines, possess a menstruum which is adapted to the dissolution and liberation of this sulphur?

A. No; because there is no local movement. Could Nature, unassisted, dissolve, putrefy, and purify the metallic body, she would herself provide us with the Physical Stone, which is Sulphur exalted and increased in virtue.

Q. Can you elucidate this doctrine by an example?

A. By an enlargement of the previous comparison of a fruit, or a seed, which, in the first place, is put into the earth for its solution, and afterwards for its multiplication. Now, the Philosopher, who is in a position to discern what is good seed, extracts it from its centre, consigns it to its proper earth, when it has been well cured and prepared, and therein he rarefies it in such a manner that its prolific virtue is increased and indefinitely multiplied.

Q. In what does the whole secret of the seed consist?

A. In the true knowledge of its proper earth.

Q. What do you understand by the seed in the work of the Philosophers?

A. I understand the interior heat, or the specific spirit, which is enclosed in the humid radical, which, in other words, is the middle substance of living silver, the proper sperm of metals, which contains its own seed.

Q. How do you set free the sulphur from its bonds?

A. By putrefaction.

Q. What is the earth of minerals?

A. It is their proper menstruum.

Q. What pains must be taken by the Philosopher to extract that part which he requires?

A. He must take great pains to eliminate the fetid vapours and impure sulphurs, after which the seed must be injected.

Q. By what indication may the Artist be assured that he is in the right road at the beginning of his work?

A. When he finds that the dissolvent and the thing dissolved are converted into one form and one matter at the period of dissolution.

Q. How many solutions do you count in the Philosophic Work?

A. There are three. The first solution is that which reduces the crude and metallic body into its elements of sulphur and of living silver; the second is that of the physical body, and the third is the solution of the mineral earth.

Q. How is the metallic body reduced by the first solution into mercury, and then into sulphur?

A. By the secret artificial fire, which is the Burning Star.

Q. How is this operation performed?

A. By extracting from the subject, in the first place, the mercury or vapour of the elements, and, after purification, by using it to liberate the sulphur from its bonds, by corruption, of which blackness is the indication.

Q. How is the second solution performed?

A. When the physical body is resolved into the two substances previously mentioned, and has acquired the celestial nature.

Q. What is the name which is applied by Philosophers to the Matter during this period?

A. It is called their Physical Chaos, and it is, in fact, the true First Matter, a name which can hardly be applied before the conjunction of the male—which is sulphur—with the female—which is silver.

Q. To what does the third solution refer?

A. It is the humectation of the mineral earth, and it is closely bound up with multiplication.

Q. What fire must be made use of in our work?

A. That fire which is used by Nature.

Q. What is the potency of this fire?

A. It dissolves everything that is in the world, because it is the principle of all dissolution and corruption.

Q. Why is it also termed Mercury?

A. Because it is in its nature aërial, and a most subtle vapour, which partakes at the same time of sulphur, whence it has contracted some contamination.

Q. Where is this fire concealed?

A. It is concealed in the subject of art.

Q. Who is it that is familiar with, and can produce, this fire?

A. It is known to the wise, who can both produce it and purify it.

Q. What is the essential potency and characteristic of this fire?

A. It is excessively dry, and is continually in motion; it seeks only to disintegrate and to educe things from potentiality into actuality; it is that, in a word, which coming upon solid places in mines, circulates in a vaporous form upon the matter, and dissolves it.

Q. How may this fire be most easily distinguished?

A. By the sulphureous excrements in which it is enveloped, and by the saline environment with which it is clothed.

Q. What must be added to this fire so as to accentuate its capacity for incineration in the feminine species?

A. On account of its extreme dryness it requires to be moistened.

Q. How many philosophical fires do you enumerate?

A. There are in all three—the natural, the unnatural, and the contra-natural.

Q. Explain to me these three species of fires.

A. The natural fire is the masculine fire, or the chief agent; the unnatural is the feminine, which is the dissolvent of Nature, nourishing a white smoke, and assuming that form. This smoke is quickly dissipated, unless much care be exercised, and it is almost incombustible, though by philosophical sublimation it becomes corporeal and resplendent. The contra-natural fire is that which disintegrates compounds, and has the power to unbind what has been bound very closely by Nature.

Q. Where is our matter to be found?

A. It is to be found everywhere, but it must specially be sought in metallic nature, where it is more easily available than elsewhere.

Q. What kind must be preferred before all others?

A. The most mature, the most appropriate, and the easiest; but care, before all things, must be taken that the metallic essence shall be present, not only potentially but in actuality, and that there is, moreover, a metallic splendour.

Q. Is everything contained in this subject?

A. Yes; but Nature, at the same time, must be assisted, so that the work may be perfected and hastened, and this by the means which are familiar to the higher grades of experiment.

Q. Is this subject exceedingly precious?

A. It is vile, and originally is without native elegance; should anyone say that it is saleable, it is the species to which they refer, but, fundamentally, it is not saleable, because it is useful in our work alone.

Q. What does our Matter contain?

A. It contains Salt, Sulphur, and Mercury.

Q. What operation is it most important to be able to perform?

A. The successive extraction of the Salt, Sulphur, and Mercury.

Q. How is that done?

A. By sole and perfect sublimation.

Q. What is in the first place extracted?

A. Mercury in the form of a white smoke.

Q. What follows?

A. Igneous water, or Sulphur.

Q. What then?

A. Dissolution with purified salt, in the first place volatilising that which is fixed, and afterwards fixing that which is volatile into a precious earth, which is the Vase of the Philosophers, and is wholly perfect.

Q. When must the Philosopher begin his enterprise?

A. At the moment of daybreak, for his energy must never be relaxed.

Q. When may he take his rest?

A. When the work has come to its perfection.

Q. At what hour is the end of the work?

A. High noon, that is to say, the moment when the Sun is in its fullest power, and the Son of the Day-Star in its most brilliant splendour.

Q. What is the pass-word of Magnesia?

A. You know whether I can or should answer:—*I reserve my speech.*

Q. Give me the greeting of the Philosophers.

A. Begin; I will reply to you.

Q. Are you an apprentice Philosopher?

A. My friends, and the wise, know me.

Q. What is the age of a Philosopher?

A. From the moment of his researches to that of his discoveries, the Philosopher does not age.

APPENDIX VII.

[The manuscript of Paracelsus which is preserved in the Vatican Library is not the only treatise which is attributed to him under the title of *Manual.* The octavo volume, which has already supplied the material for the fourth appendix, contains two extensive collections of processes, the one devoted to chemistry and the other to medicine, which are respectively described as the *Primum* and the *Secundum Manuale.* The latter is wholly outside the scope of this translation, but the first, which here follows, would have assuredly deserved a position of palmary importance in its proper section if there were not grave reason to doubt its genuine character. The preface has already stated that there are no satisfactory rules for distinguishing between the authentic and forged writings which pass under the name of Paracelsus. The early date of the Basle octavo might be regarded as in favour of its contents; it contains the *Archidoxies,* which are themselves indisputable, and it will be seen that the *Primum Manuale* claims to have been printed direct from an autograph manuscript. At the same time it does not correspond in any traceable manner with what is known of the Vatican treatise, and its "demonstrative physics" would appear to belong rather to the most suspicious section of alchemical literature than to serious experimental records. While this, of course, is an individual opinion, it is based upon a somewhat wide acquaintance with the great masters of alchemy, and on the evidence of other writings contained in the present volume which are less open to question. But whatever its actual value, it would by no means be right to exclude it because it is of doubtful authenticity, or because it is not in correspondence with what is known concerning a manuscript to which few have an opportunity of access. It has been, therefore, reserved to an appendix, where it may be accepted for what it is worth. If it be really a work of Paracelsus, the veils of the great mystery have been folded very thickly, and are not of an inviting texture.]

A MANUAL OF PARACELSUS THE GREAT,

That most excellent Philosopher and Doctor of both kinds of Medicine;

THAT IS,

A THESAURUS OF SPECIAL ALCHEMICAL EXPERIMENTS UNDER THE AUTOGRAPH OF THE AUTHOR HIMSELF—PARACELSUS.

THE WORK ON MERCURY FOR LUNA AND SOL, WHICH I HAVE DONE WITH MY OWN HANDS.

TAKE of calcined tartar 2lb., and of quicklime 1lb. Mix together. Place, in a vessel well luted, in a potter's furnace, that it may be calcined and rendered white. Dissolve that matter in the following lixivium. Let it stand until the calx in the bottom shall become tartar turned into water. Then distil by a filter; afterwards take the lixivium and place on it 1lb. of egg shell with 1lb. of quicklime. Make all boil together, so that it may become a stone. Put this to be again calcined as before, and also place it again in the lixivium; dissolve and distil it by the filter. Treat it again with egg shell and quicklime, as above, and repeat this three or four times; lastly, take the lixivium distilled by the filter, and make it boil until it is congealed. Let that tartar be calcined by itself for 15 or 16 hours; then dissolve it into an oil, and thus you will have oil of tartar. Then take the Mercury, sublimate it with quicklime and egg shell and calcined sulphur three or four times. Imbibe it nine times with the aforesaid oil, and sublimate it. What remains at the bottom, preserve in a glass vessel. What ascends, imbibe another nine times, sublimate, and preserve what remains. Imbibe yet again, and continue doing so until nothing ascends. Then take the mercury, pound it well, and imbibe it yet once again. Then dissolve it into an oil in a cold cellar. When all is dissolved put in 6 oz., 1 oz. of silver foil. Place it in horse-dung, that it may be dissolved into water, and, when dissolved, coagulate it into Luna.

INTO SOL.

In the place of Luna take Sol, and in the imbibition of the Mercury add crocus of Mars, that it may become red.

THE LIXIVIUM IN MADE THUS:

℞ Quicklime
Wood ashes
Egg shell

of each a sufficient quantity; and boil to the thickness you know to be sufficient.

THE WORK OF SULPHUR, ACCORDING TO OUR OPERATION.

℞ Sulphur 1lb.
Crocus of Mars 1lb.
Colcothar ½lb.

Place in a glazed vessel, and boil with the aforesaid lixivium until it be well reddened. Then distil, calcine the remains, repeat operation, and do the same twelve times, or even more, till one part of it becomes red and the other remains white. Let that whiteness be distilled by itself so long as it does not burn. Then mix with oil of tartar, and let it fix the mercury. It will congeal it if it be boiled therein, and will be fixed by sublimation and putrefaction, so that one part tinges a hundred parts. Take the red part of that oil, place it on silver foil, and let it stand for a week. Afterwards purify by ashes, and you will have good and excellent Sol. Or boil mercury in the same and a similar result follows. Hamelius first made a lixivium, and says that out of ten pounds there is scarcely one of tartar. Let it be very acid.

CONCERNING MERCURY.

Take mercury, and pound it with egg-shells. Boil it with oil of tartar, and afterwards sublimate it. Repeat this fifty times. Then take that mercury, and imbibe it with oil of Luna. Having done this, add a little of the oil of tartar and sublimated mercury. Mix all together and put in a flask, well luted, on a gentle fire for 24 hours, and then for four hours on a fierce fire. You will then find a stone which will perform wonders. Dissolve this in water, and the water tinges to Luna. Dissolve in it as much Luna as possible, and afterwards coagulate.

TO REDUCE THE DUST OF METALS INTO ASHES.

Take of the dust of the metal 1 quartal; borax, tartar, 1 quartal each; imbibe with oil of tartar, and afterwards dissolve.

CONCERNING STELLIONES OR SPOTTED LIZARDS.

If stelliones are distilled by descent, they yield an oil, of which it is said that it should fix mercury and convert it into Sol.

ANOTHER.

We believe that the ashes of a stellio should convert Luna into Sol, if they be projected on Luna.

ANOTHER.

If you pour into their stomach, by means of a reed, a quantity of *Mercurius vivus*, put it into a luted vessel, and burn it, you will find fixed mercury, which is Luna. Take particular notice of these stelliones.

Concerning Lizards.

As we have prescribed in the case of stelliones, so do we also write concerning common lizards. The virtue of these animals should be carefully noted.

To Cut Iron with Iron.

Take a leek, a radish, and some earth-worms. Distil the water from them, in which dissolve a small knife as long as may be necessary.

An Opinion on the Fixation of Spirits.

We have an opinion that the fixation of mercury can in no way be better effected than in the following: Take the white of eggs and purify it with vitriol, alum, salt of nitre, and colcothar. Distil it again and again. Then distil with calcined tartar and the ashes of eggs from three to six times. Then imbibe the mercury from the colcothar and calcined tartar with the aforesaid oil until it remains on red-hot iron. Place that mercury in a glass vessel and dissolve it in water. That water dissolves Luna. When it has been dissolved, put it again to digest until it is altogether turned to water. Coagulate this with water and project this stone, whereupon it is dissolved and converted into Luna. It will last for ever. But if you desire to turn it to a red colour, take gold instead of Luna, and it is coloured red with water of the crocus of Mars. Investigate concerning the calx of Luna and fixed arsenic.

The Preparation of Tuthia for Perpetual Redness.

Take some green tuthia and pound it. Mix it with salt, and place it on a fire, in a well luted crucible, for a day and a night. Afterwards open crucible and sweeten the compound. Repeat this process; then scatter Luna upon it, and it will be reddened for ever.

For Fixing all Spirits.

Take of the salt of tartar, vitriol, and saltpetre 1 lb. each, of common salt, wood ashes, oak ashes, vine-wood, and aminon 5 lb. or 6 lb. each, with 1 lb. of calcined tartar, quicklime, and alum. Pour acetum over this, and let it stand for three days. Constantly shake it, and afterwards set it to boil for an hour. Then let it be luted and leave it to stand for fifteen days, it being shaken five times in each day. Then distil it by means of a filter, and keep it. You can pour in fresh acetum upon it until the virtue is thoroughly extracted. Then place spirit in that water, congeal and dissolve it, and it will be congealed.

The Fixation of Spirits.

Take of prepared common salt, sweet water, prepared salt of alcali, sal ammoniac, oil of urine, and tartar, 1 lb. each, and of honey 5 lb. Place these in a glass vessel in horse-dung for a period of eight days. Afterwards take them out and let them boil gradually in succession. Then you will find a clear white stone. Project this in acetum, and it is turned into water. With this water imbibe the spirits and the calcined bodies; thus mercury is converted into Luna.

The Fixation of Spirits.

Imbibe the spirit with oil of tartar, and then the oil is distilled or extracted from it. Keep doing this until it will stand a somewhat strong fire. Take the sublimated spirit, etc., and pound it on marble with oil of tartar. Place it in an alembic upon the sublimating furnace, and distil the oil from it until it is perfectly dried. Do this until nothing is evaporated from the coal. Afterwards put it in a phial and plunge it in dung for ten days, until it is consumed into water. Afterwards put it in a hot furnace with a clear fire until it is congealed.

Note, that you can fix the spirit with oil of sulphur, or of sal ammoniac, and with water of white vitriol. But for conversion into Sol it must be treated with water of tartar.

How Spirits should be Dissolved.

Put into water eggshell, salt of alcali, and sal ammoniac. This water is poured on the warm or fused Spirit and it becomes a powder. Afterwards dissolve and congeal it. Dissolve nine times and it will be fixed.

The Fixation of Salts and of Spirits so that they will remain in the fire and melt like lead.

Dissolve salt in acetum and place therein mercury at pleasure, sulphur, and arsenic, and they will melt together.

Concerning Lixivia.

Make a lixivium as strong as possible, pour oil on it, and let it stand for two days. Shake it frequently, and it will be converted into milk. Having done this, try whether it will stand the fire. If it does, well and good; but if not, put it on again until it does stand, and it will be fixed. Do this for seven days, imbibing and drying it over a slow fire. It will then flow like lead.

Concerning the Virtue of Oil of Tartar.

Distil the oil from crude tartar. It avails in all diseases of the joints and of the spleen, whilst it also absorbs ulcers.

The Fixation and Tincture of Spirits.

Take of calcined tartar one part, of water of the body *quantum suff.* Let it boil, and note that it is well imbibed with oil of tartar. Distil until it is dried, and repeat this as long as the ingredients remain in the fire. Afterwards take the spirit, pound it, and place it within a glass vessel in horse dung. Let it remain for ten days, desiccate over fire the water thence produced, and thus it will be fixed. Note that you can fix spirits with oil of sulphur or with water of sal ammoniac, or with water of white vitriol. Distemper the water of tartar in the sun with crocus of Mars, as above, etc.

To Dissolve Tartar in one hour without a Furnace.

Take marble and place upon it some tartar. Let it stand in water as long as possible, but so that the water shall not touch the tartar, and it will soon be dissolved.

NOTE CONCERNING MINERALS.

Note concerning alcali, which has been made from the strongest lixivium. If a mineral be imbibed therewith in a glass vessel, it will be fixed.

ANOTHER METHOD OF COMBUSTION, WHICH HOLDS GOOD FOR ALL MINERALS.

Take Mineral, 4 lbs.
Calcined Tartar, 1 quartal.
Flour, ½ lb.
Bruised Glass, 1 lb.
Good lute and oil, *quant. suff.*

Make a ball the size of your fist. Dry it and burn it for ten hours in a closed vessel or a hollow globe. Having done this, break and wash it, imbibe it with litharge and anatron in Saturn, with glass or sand strewn over it, for two or three hours. Afterwards it must be fulminated; but note this, that it should be imbibed with the sand until no smoke ascends, and then fulminated.

NOTE ON THE ABOVE.

Every mineral should be first evaporated in Saturn before it is placed in the ashes.

FOR SULPHUREOUS AND ANTIMONIAC MINERALS.

Distil the sulphureous or antimoniac minerals by descent for 6 or 8 hours. Then the sulphur is distilled by descent, and the mineral holds Luna or Sol, which is purged by lead, as you well know how.

But if a lixivium is put into the lower vessel, then the sulphur is converted into an oil.*

TO SEPARATE LUNA FROM VENUS IN MONEY.

Take equal parts of arsenic and saltpetre. Dissolve by successive degrees over a slow fire. Then the money in a state of flux is put in, piece by piece, and left in a state of fusion for about a quarter of an hour. Pour in a regulus, and the Luna is separated from the Venus.

THE COAGULATION OF MERCURY.

Fill an egg-shaped crucible with mercury, fasten the opening with a lute, then place it in an open vessel. Pour on lead, and put it to cool. Thus you will have it coagulated.

TO REDDEN SULPHUR.

Let it be distilled by descent, and afterwards let water be placed in the lower vessel. The sulphur will adhere, and will be coloured red.

MY OWN RECIPE.

Take Sublimated Mercury, lb. ij.
Sublimated Sal Ammoniac, lb. i.
Crude Tartar, lb. ij.
Calcined Tartar, lb. iij.

Mix together and place in a glass vessel in cold water, so that it may be dissolved. When dissolved put in it 6 oz. of calx of Luna. Let this dissolve,

* From this point the recipes are given partly in Latin and partly in German, the greater part being often in the latter language.

and when you have done so, coagulate. Dissolve and coagulate a second time.

In Alchemy.

Take Oil of Antimony, iiij. parts
Auripigment, i. part
Crocus of Mars, i. part
Salt of Nitre, i. part
Reddened Flos Aeris, i. part

Let them be imbibed with oil of antimony and dried, until the whole of the oil is imbibed. Take of these powders ℥iij., and of Luna ℥s. Let them remain continuously for 12 hours in a state of fusion. You will find in the separation of the strong waters, lx. d. of good gold, or more ☉ by the side of ☉ white or yellow arsenic, ☉ by the fusion of sulphur . . . . lily. Take of this oil half an ounce, of fixed sulphur and sal ammoniac ℥i., and of burnt salt ℥ij.

A Cement of Part with the Part.

Take ℥iiij. each of
Bolus Armenus
Fixed Salt of Nitre
Fused and prepared Common Salt
Red Vitriol.
℥i. each of
Sal Ammoniac
Flos Aeris.
℈i. each of
Burnt Brass
Red Calamine Stone.

Let the powders be imbibed with urine, and the *pars cum parte* of Sol and Luna be cemented for twelve hours. Then let it stand in a state of flux for six hours. Let this process be repeated by cementing three times, and you will have Sol of 24 degrees according to every test.

Given by the Grace of God.

Take Oxide of Vitriol, Flos Aeris, Sal Ammoniac } ¼ part each.
Ematite i. oz.

Boil in a glass vessel and dry to a powder. Place in dung or a cellarium, that it may be dissolved to water. Coagulate this water to a powder. Then take i. part of gold, ii. or iii. of silver. Dissolve and project ½ oz. of this over viii. oz. projected in a state of flux. The more it is burnt, the better it will be.

A Very Good Cement in Sol.

Take calcined Venus, vitriol calcined to a gray colour, and use a common salt. Let Sol be cemented in it 12 or 6 or 8, and it will then be graduated to the highest point.

Fixed Oil.

Take equal parts of salt, of nitre, and of quick lime. Burn it well for one hour, then dissolve and filter it, and it will be coagulated. Do the same with oil of tartar. Take equal parts of both. Dissolve in dung or in a bath.

Solution of Gold by Marcasites.

Take Antimony x. parts.
Common Sulphur, Crude Tartar } iij. parts each.
Common Salt fused ij.

Let them flow together into a black mass. Put them at the same time to be melted with the marcasites. Pour in the regulus, and purify in a cinder fire.

The Projection of Luna.

Take of golden marcasite and of stibium equal parts. Pour them together into a fusorium 27. From the fusorium it is extinguished in strong alcali. Project in succession, and you will find much Sol in the separation of the strong waters.

The Fixation of Antimony.

Take Antimony i. lb.
Saltpetre ½lb.

Put them to melt together in a tigillum, and the mixture will become fixed. It no longer consumes gold or silver, nor is evaporated by fire, and is of a red colour.

Water giving Weight to Sol and Luna.

[Also if you wish to give weight to a silver or gold cup.]

A Great Secret.

Take Calx of egg-shells ℥ij.
Sal Ammoniac 2½ ozs.

Let these be mixed by impastation. Leave the mixture in a damp place that it may be dissolved. Distil by a filter. Then dip gold or silver therein, and they will acquire three times their original weight.

A Good Mode of Whitening, which will stand the Fire, and the Test of Lead.

Take Sublimated Mercury ℥iv.
Sublimated Arsenic, Calcined Luna } each ℥ij.
Sal Ammoniac ℥viij.

Sublimate three or four times, and afterwards add the clear part of eggs, cooked *quant. suff.* Pound the whole together until it be dissolved. Afterwards distil in an alembic and congeal. If it be then dissolved in a bath, it will have more strength, and let there be placed therein one part in 100 of purified copper, tin, or mercury.

FOR MINERALS NOT FIXED.

Take the unfixed mineral
Common Salt
Flour

in equal parts. Let them be pounded together and moistened, so as to become a thick mass. Let it be dried by the fire, afterwards pounded, washed, and fulminated.

METHOD OF CALCINING MERCURY AND THE PREPARATION OF MERCURY WITH MARCASITES.

Take Salt of Nitre
Calcined Alum

1 lb. each. Take aquafortis, neither more nor less in quantity. Take the marcasite in powder, and place it in a phial with three ounces of Mercury. Pour upon it the aquafortis aforesaid, and let the phial be closed with sealing-wax. When the mercury ceases to move and to leap about, then wash it well, dry it, with it take equal parts of litharge and calcined tartar. Mix all, reduce to a fluid together, afterwards by ash fire.

From the golden marcasite is made Sol, and from the silver, Luna.

A TEST FOR THE SAID WORK OVER MARCASITE.

Take marcasite, and place it in a tigillum with Mercury over the coals. Thus the Mercury becomes hard and red, and the marcasite fluid. Then it is strong.

ANOTHER METHOD FOR THE ABOVE.

Place it in lead previously washed. If the lead renders it hard as Luna, and divisible when struck, it is good. Lord Leonhardus Sems (gave) the above.

NOTE.

Take of Cinnabar i. lb.
of Arsenical Sulphur } equal quantities, viz.,
of Calcinated Tartar } i. quartal.
of Alcohol of Soot } each ½ lb.
of Twice-prepared Salt }
of Saltpetre to the weight of all.

Let them be mixed, pounded, and imbibed several times with water of eggs or albumen of tartar. Let them stand in flux for three hours. Then kindle. After this liquefy the mixture for four hours in a very strong fire. Proceed to wash and purge by cineritium, and you will have the Treasure of the World.

OF ZINC.

Take aquafortis in which Luna is dissolved ; afterwards imbibe with zinc ; next by means of the cineritium. Also imbibe and fulminate the dross in the glass.

FOR MINERALS WHICH DO NOT READILY MELT.

Extract alcali out of the *caput mortuum*, with which alcali every mineral is forcibly dissolved.

Concerning Minerals out of Arsenic.

Take, pound well, and lute into slime by *vicediam.* Afterwards burn in the fire till the smoke ceases. Then it will be sublimated.

Another Method.

Take equal quantities of slime and of minera. Make a small pellet about the size of a bean. Let it be imbibed successively into Saturn, and afterwards fulminated.

Another Method for Augmenting Minerals.

Take of minera and of slime equal quantities. Let them be mingled, placed in a jar, and well luted. Burn three days and nights. After this it will be fulminated and augmented.

For Sulphurous Antimoniacal Minerals.

Take of minera i. lb., of saltpetre ½ lb. Burn for an hour. Afterwards wash. Reduce to lead with litharge, and afterwards by means of the cineritium.

Note.

Take of filings of Venus twelve parts; of laminated Jupiter one part. Next make the following powder :—

Take xxxij. lb. of Sulphur Sand
iij. lb. of Caput Mortuum
i. lb. of Sulphur

Pound them with the said filings. Make two layers of this powder. Distil in a wind furnace. Let it become a black powder. Next smelt it with half a part fz. Pour the regulus. Join to it three ounces of Luna in a cineritium of light. Then you will have your Luna and 7½ oz. in cineritium.

Reduction of the Minera.

Take of minera i lb., of minium lb. i. Cause them to stand in flux half an hour. Then infrigidate. Combine in equal quantities with litharge. Imbibe in Saturn and fulminate. You will then find one dram of Luna and more than half an ounce of pure gold. Dross makes up the larger proportion.

Digestion of the Moon.

Take of Alum v. lb.
of Saltpetre } each iiij. lb.
of Vitriol }
of Verdigris iij. oz.
of Cinnabar ij. oz.

Make aquafortis.

Afterwards take of Cinnabar
crude Mercury } xv. lb. each
reddened Vitriol }

Let the aquafortis above-mentioned be poured over these recipes. Distil and at length purge. Also take iij. lb. of this water. Let there be dissolved therein two marcs of Luna. Afterwards let it stand on the cinders thirty days. You will then find iii. oz. of good gold.

Water Fixing Mercury—A True Recipe.

Take of Sal Ammoniac, Alcali, Saltpetre } equal quantities.

Imbibe them with burnt wine and distil. This water fixes Mercury.

Digestion of Luna.

Dissolve four ounces of lead, and as it melts a little, inject four ounces of quicksilver. Pulverise, imbibe with oil of tartar into a paste. Pulverise again. Then put the whole aforesaid amalgam in the tigillum. Place above viij. oz. of fixed sulphur. Dissolve thoroughly, mix, afterwards pour out and pulverise. Imbibe thrice with oil of tartar. Dissolve as before. Then take one ounce of purged Luna. Sprinkle gradually over it one ounce of the said powder. You will then find the weight of two grains of good gold.

Separation of Gold from the Cup.

Take of white calcined Tartar i. oz.
Sal Ammoniac ij. oz.

Let an oil be produced in the cellarium. Then boil the roots of pyrethrum in vinegar for a long time. Take of oil and water equal quantities. Put them into the cup. *Note*, of sublimated sulphur see elsewhere.

For the Cineritium.

Take of Cinder three parts
of Brick pounded and strained, two parts

Also take again three parts of cinders, with one part of melted salt boiled with one part 27 oz. of small nails. It produces the equivalent of one talent.

To render Iron unusually Hard.

Distil water from radish and maw worms. Extinguish twice or thrice, and gems can be cut with it.

To make Light without Fire.

Take cantharides, putrefy it in dung, and distil it. Put this water into a hollow crystal, and there will be sufficient light to read by.

For the White and Red.

Take Vitriol Rom. lb. j.
Saltpetre lb. vj.
Cinnabar oz. iij.

Distil as aquafortis. But collect the second water, which is saffron-coloured; divide it into two parts, and in the first part dissolve i. oz. of sublimated mercury, in the other part i. oz. of silver filings. Let it dissolve and close it carefully. Having done this, let it distil over a very slow fire by means of an alembic until only a third part of it remains.

Afterwards put it into a good vessel of glass, and place this in cold, damp earth for fifteen days. Then the aforesaid matter falls to the bottom like a

small, clear, and crystalline stone. Next, by means of a filter extract the water, so that the stones may remain, and place these, in a well-closed glass vessel, thoroughly luted, for five days in dung, and let them be dissolved into water.

Take this water, put it in another vessel, and place the vessel in some other earth with a moderate light. Make a very slow fire underneath, scarcely more than the light of a lamp, for the space of three days, and that water will be hardened to the consistence of a stone. Take that stone once more and pulverise it on cleansed marble. Then place it in a glass vessel in dung for 30 days. Let it be again dissolved into water and hardened once more by fire in the manner aforesaid. Then once more dissolve it under dung as before, and keep on dissolving and congealing it until it is dissolved in one day. Then you will be better able to congeal and dissolve it. And it will be a water which congeals mercury into true Luna at every trial. One part of Luna is deposited for every thousand parts of mercury.

And if you wish to Multiply.

Take the aforesaid aqua fortis in such quantity that you can dissolve in it 40 oz. of Luna in plates. Put it in a vessel by itself, and the same quantity of sublimated mercury by itself in another vessel. Leave it until it is dissolved in the water mentioned above. Into the water named before put one ounce of the elixir already described, which has stood for 12 days, while being made. Put all these ingredients, in a well-closed glass vessel, under the earth, in a cold, damp spot, for nine days; then all will descend to the bottom of the vessel in the form of a crystalline stone. Extract the water by means of an alembic in the method described above, and place the stones in warm dung for nine days as before. They will then be dissolved into water. Then know that this is the water of Luna and Mercurius, and that one ounce of the medicine should be viij. And the saffron medicine which falls will be one on a thousand. For Sol it is made thus:—

Take Vitriol Rom. lb. i.
Saltpetre lb. $\frac{1}{2}$.
Cinnabar lb. $\frac{1}{2}$

Distil, as before, a second prepared water. In one part dissolve quick mercury, as much as you will. Then draw off the water by an alembic, and the calcined mercury will remain at the bottom. Burn this in the fire, as you know how, and it will be like blood. It may be dissolved perhaps in aqua fortis and make this red. Having done this, take viij. oz. of the red water itself and i. oz. of the aforesaid medicine. What you have placed therein will descend to the bottom, in the shape of a crystalline stone. Then draw off the water by means of a filter, as before, and the stones will remain at the bottom. Then take the aforesaid stones, put them in a well-closed glass vessel, under warm dung for nine days, and it will be dissolved into a water. This medicine gives one part for every one thousand parts of quick mercury.

ANOTHER GOOD METHOD.

Make an amalgam of best mercury, carefully washed, iii. parts, and of good Luna i. part. Then wash very carefully with salt and acetum, until all blackness disappears. Pound the amalgam on a stone, and dry it. Steep it in urine after wrapping in linen rag. Take an alembic placed on ashes in a furnace, and make a moderate fire of coals, so that you can touch the top of the urine with the hand. Keep on thus decocting and pounding until it is thoroughly black, for this is a good sign. Then wash it in the water of common salt, thoroughly pure, until no blackness appears. Then once more pound, decoct, wash, and dry on linen rag until all blackness has disappeared. Put it then in a glass vessel for sublimation, when it ascends to the sides of the glass, and the Luna with it. Leave it to cool, and again mix all together; pound and decoct twelve times in succession. Then place it in a vesica with a long neck, together with sublimated sal ammoniac. Pound it with the said amalgam, and let the sal ammoniac be dissolved in warm water, or, better still, in aqua vitæ. Afterwards let the vesica be luted and dissolve in warm dung, changing the dung every week so that the matter shall be thoroughly dissolved, and it then becomes an elixir. Afterwards put it in urine to evaporate, and when the water is evaporated increase the fire, so that all the sal ammoniac may ascend, and the medicine may remain fixed in the bottom. Then remove the sal ammoniac, and congeal the medicine with a slow fire, as if it were Sol, for several days, and the thing is done.

If you wish to multiply this elixir, place one part with 100 parts of quick mercury, purified and heated in a crucible. Melt it completely over a slow fire and it becomes friable Luna. If you put one part of this to 100 parts of quick mercury it will become purest Sol.

RED OIL WHICH FIXES LUNA AND SOL, AND FROM WHICH THE CARBUNCLE IS MADE.

Take Crocus Arabicus
Calcanthus
Arabian Verdigris
Litharge
Red Calcined Tin, iij. oz. each
Quick Sulphur
Citrine Arsenic
Red Sublimated Calx, lbs. ij. each
Prepared Sal Ammoniac
Saltpetre, distilled and rectified with distilled
Red Animal Oil, lb. j. each.

Let these ingredients be covered with wax, and, when they have been thus treated twice, put the mixture to dissolve, until a pure red water is produced. Then let it be distilled in an alembic; and with this water imbibe the quicksilver aforesaid. Then dissolve and distil it as before, and waxen with it the sulphur and the arsenic. Leave it to dissolve and to distil until it be clear and

red, and coagulates of its own accord in the vessel of coagulation. When it has been coagulated, waxen it as above. Reduce it over a slow fire with the addition of animal oil until it will pour out like wax. Project one ounce of it on 100 parts of Luna or Jupiter. If there be mercury or anything else therein, tinge it, and it will be coagulated, producing gold better than that of Nature. Hereby also carbuncles can be made out of crystals.

THE GRADATION OF LUNA.

Take Sal Ammoniac, oz. i.
Alumen Jameni, oz. i.
Flos Æris, oz. ij.
Vitriol Rom., oz. ½
Saltpetre, oz. ½
Tuchia, oz. i.

Make an aqua fortis. Then pulverise thoroughly the dregs. Dissolve i. part of Sol and i. part of Luna, and project ½ a dram thereupon. Afterwards granulate *per sturbam* in the aforesaid strong water, and thus, beyond any doubt, you will have gold that will answer any test up to xxiiij. degrees.

PERPETUAL WATER.

Take the calx of eggs. Dissolve it with the white of eggs for three weeks. This water placed on a brass plate heated to redness will acquire perpetual whiteness.

ANOTHER MODE.

Dissolve the calx of eggs with alumen jamenum, sugar, and common salt. Distil once in an alembic, and it serves for Luna.

PRECIOUS WATER.

Take Salt of Nitre, Sal Ammoniac } vj. ozs. each
Honey, cooked and skimmed, v. oz.
Boy's Urine, xv. oz.

Let these be mixed; place them in a furnace for two days. Then congeal for one day and dissolve; and it will be perfect water, which congeals mercury that has been purified and heated. It will also transmute brass into good Luna.

THE STRONG WATER CALLED THE OIL OF THE PHILOSOPHERS.

Take one part each of Vitriol Rom., and salt of nitre. Pulverise them and mix with charcoal made from linden wood. Moisten with acetum; then pound, dissolve, and distil, when it will become an ardent water.

FOR SOL.

Dissolve cinnabar with water of sal ammoniac, vitriol, and salt of nitre until it is perfectly fixed and becomes red, which will be after three or four dissolutions. Put this for sublimation with the same quantity of sal ammoniac. Repeat the sublimations until it be poured forth. Then dissolve in acetum, having previously dissolved plumose alum in the bath. Continue until it be as fluid as wax, and part of it tinges prepared Luna.

Corporal Mercuries.

Take arsenic and dissolve it in aqua fortis. Then take Luna, and dissolve that. Join them together, and strain them as you know how. Sublimate the arsenic from the body, and it will become a sort of mass. Put it into a damp place, and it will be dissolved into mercury.

Corporal Mercury.

Take any body you will and two parts of arsenic. Pulverise, and then sublimate them. Place in hot water and it will come forth as mercury.

Corporal Mercury from the Metals.

Take of any metal one part and of purified white arsenic another part. Make thin plates, place them one over the other in layers, and let them be regulated first of all in a slow fire, successively made stronger until it begins to smoke. Then pour quickly into cold water, and you will find mercury.

Mercury from Jupiter and Saturn.

Put layer for layer of quicklime and metal, and place them in a sublimatory. Set on the fire, and sublimate as you know how. The mercury ascends, adhering to the alembic, and is quickened.

Corporal Mercury from Saturn.

Dissolve Saturn and put salt upon it. Shake it until it turns to a powder. Then wash it with warm water and dry it. Afterwards put it in a glass vessel and pour upon it the white of eggs and water of sal ammoniac. Lute it, put it in horse dung for two days, then take it out, and you will have what you require.

The Mercury of Saturn according to the Experiment of Hamelius.

Take thin plates of Saturn, placed layer by layer with common salt in a vessel. Bury it for eight days in the ground. Dilute with common water, and then a part of the mercury will be found at once. Repeat the process with the rest.

Mercury of all the Metals.

Take some sal ammoniac, flos æris, vitriol, and plates of any kind of metal. Put them in layers, and sublimate them. Place the sublimated portion in acetum, and you will find *Mercurius vivus.* Do this until all the plates are turned into mercury.

Mercury from all Bodies.

Take the calx of any metal and place it in acetum, in which there are two parts of the calx of the body and one part of sal ammoniac. Place these in dung for seven days, and the body becomes mercury. If an amalgam is made from it, together with Sol and Luna, by degrees natural mercury is fixed with it.

Corporal Mercury.

Take Saturn, and dissolve it in a tigillum. When it is dissolved, scatter over it sal ammoniac, and stir it with a spatula until it becomes a powder. Afterwards project the powder in boiling water, and the salt will be dissolved

in the water. Then desiccate pulverised lead in the bottom, and put it with white of eggs into a glass vessel for 62 days. Afterwards remove the water, and you will find the mercury in a fluid state at the bottom.

ANOTHER METHOD.

Take a sufficient quantity of sulphur and linseed oil. Boil the mixture until it comes to the form of a vapour. Put in it plates of Saturn, and it is converted into Mercury in three days.

CORPORAL MERCURY FROM LUNA.

Take plates of fulminated Luna; dissolve in aquafortis. Extract the aquafortis by means of an alembic, and wash the calx with fresh water. Mix with it sal ammoniac, alcali, and oil of tartar. Blend all together on marble and pound thoroughly for three or four hours. Then the body gains a soul. Collect this soul carefully, and the four elements.

THIS IS THE FOUNDATION ABOUT WHICH ALL THE PHILOSOPHERS HAVE WRITTEN.

If you cannot pound them so long on marble, then after you have done so for two days, and the soul does not shew any desire for the body, place all together in a glass vessel, and put it in dung for four weeks. Afterwards set the glass vessel in a capella and abstract the water until all moisture has disappeared. Strengthen the fire, and the blessed water ascends. Collect this carefully, and if any remains in the alembic, remove it with a feather. If the body is not totally abstracted, add more oil of tartar, put it in a glass vessel with other simples, as before, pound it well, and set it in dung for eight days. Thus the whole will be extracted.

CORPORAL MERCURY FROM SATURN.

Take Saturn, put it in a patella, and when it is slightly dissolved, stir it well with an iron spatula. Afterwards let it be divided into minute parts and salted with salt. When this is done let it be again dissolved. Pour warm water over it, and it attracts the water to itself. Then take calx of marble, put it in a closed glass vessel, well luted; set it in horse dung, let it stand for a month, renewing the dung each week, and it is transmuted into Mercury.

TO CONVERT WHITE SOL INTO ALOTH.

Take oil of vitriol by descent, calcined oil of tartar, and sal ammoniac in equal parts. Mix them, adding calx of Luna, and place in a phial. Set this in horse dung or in a bath of Mary for four weeks, that it may putrefy. Open the vessel and put equal weights of pounded sal ammoniac and salt of alcali, with oil of vitriol. Putrefy as before for four weeks, and the body will be entirely converted into Aloth.

CORPORAL MERCURY.

Take vitriol, saltpetre, and alum. Make aquafortis as you know. Then take *caput mortuum* and extract its salt with common water. Reverberate the *caput mortuum* a second time, again extracting the salt. Repeat this

process, the oftener the better. Afterwards take the earth that remains. Pour over it aquafortis. Leave it to stand for one day. Then force it through the alembic in that aquafortis. Dissolve the moon. Abstract the phlegm through the alembic in the bath. Afterwards take good sal alcali, reverberate it, and dissolve in oil. Then take good oil of tartar, and afterwards dissolved sal ammoniac, which has been six times sublimated. Take equal quantities of these three oils. Pound away the calx therewith, put in a cupel. Pour the oils over to the height of a finger. Place in horse dung fifteen days. Then set over cinders. Drive at first gently, afterwards violently. Then there ascends a white powder, which proves from a marc to two ounces of Luna. This makes living with brandy or sunst.

Receipt of the Bishop of Strasburg.

Take of filings of Luna two ounces. Dissolve in aquafortis. Then abstract thence into the third part of the water through the alembic. Put in a cold place, where white pebbles collect; take them and weigh them. Then take so much of salt of tartar, and half as much of sublimated sal ammoniac, and putrefy them in dung, whereupon the pebbles will become mercury. Dry it by means of fustian (?) cloth. If it does not become Mercury, sublimate it, whereupon you will have Mercury out of Luna.

Freising.

Take of aquafortis one part out of two parts of vitriol, and one part of alumen. In it dissolve Luna, then excoct the calx. Then take of the burnt salt of tartar two parts, common salt one part, salt alcali, salt of urine one part each.

Pound these salts together with the calx of the moon, and let the quantity of the salts of the moon be as much as of all the salts. Dissolve it all in water; next put therein wheat meal and a little brandy. Let it become dry as glass (?). Then sublimate it. Thus Luna Mercurius is produced.

Note.

Take leaves of Luna beaten extremely thin, a finger's length and the breadth of a creutzer, put it into a mortar (?) and reverberate it nine consecutive days, purify it from the sulphur which then comes forth, and reverberate it five or six times, or until Luna yields no more sulphur. This takes place when the leaves become black.

Impaste this sulphur with quintessence of wine, and there will be quicksilver. Reverberate it with wood of oak or birch.

The Original has.

Dissolve tartar in aquafortis, then let it evaporate and be coagulated. Then dissolve it out of a stone into an oil. Pour it upon sulphur of the moon. Stir it in a vessel with a hard wooden spoon, and you have Mercury of the body.

Mercury of the Body.

Take of sal ammoniac one part, of Mercury sublimated one part, of calx of lime one part. Pound the sal ammoniac and mercury well together; let them melt gently. Put in the Luna, speedily take it out again (and place) on a dish with water, and stir it. Then dry it with a towel or leather. You will then have Mercury of the Moon, true and good.

Another Method.

Take saltpetre which has been well purified. Pound it well and put it into a cucurbit. Set it among warm ashes, whereupon the saltpetre will boil like water. Then take the calcined Luna and put it into water. Let it stand thus, care being taken lest the ashes be too hot. Then mercury of silver will be produced. Strain through a cloth and collect the mercury.

Corporal Mercury.

Vitriol also, if it be distilled alone into water and a quantity of filings be placed therein, will in the course of time become Mercury.

Another Method.

With Mercury sublimate seven times, pound calx or cinder of every metal; add flour and water. It will descend, for it will turn into living Mercury. Reduce to a cinder after solution and repercussion, cleansing it thoroughly of saltness and spirits of aquafortis.

Take filings of Luna. Afterwards take Mercury, which you must wash with salt and vinegar. Cook Mercury with vinegar and salt. Take three parts of this and of filings of Luna one. Make an amalgam and pound well for two hours on a smooth stone. Then let the Mercury evaporate. Afterwards remove the vinegar and salt with warm water. Calcine that calx of Luna twenty hours, and there will be a woolly Luna. After which calcination put in the distilled vinegar. Then make the remaining calx, working as above. Then take the extracted Luna, pound it with some tartar, and it will be live Mercury.

Note.

Dissolve filings of Luna in aquafortis, draw the third part through the alembic and put it in a cold place, where crystals collect. Take it and weigh it; add the same quantity of sulphur and half that quantity of sal ammoniac, etc., as see above, in the Bishop's art.

Another.

Take the calx of any metal, place it in vinegar, wherein let there be distilled two parts of sulphur, of sal ammoniac one part, and of Mercury sublimate one part. Let it be placed in dung or in the bath eight or ten days, then let it be distilled among the cinders, and Mercury will ascend. With this there is an amalgam of Luna or of Sol, and you will tinge all bodies. Take of sublimated Mercury, which see, pound it with steel filings, out of sal ammoniac, put it into a wet place, and let it be dissolved into oil without water.

PRAXIS.

Take of Mercury of the sun one part, and of crude Mercury. Put it into a phial and seal. Give it, from the first, four or five gentle fires, increasing the heat gradually until you perceive the red powder. It tinges Mercury and all bodies. Treat the white similarly. Take of Mercury of Luna two parts, of crude Mercury one part. Possibly the red process should have been treated in the same manner.

NOTE.

Take an equal quantity of salt and sulphur, and of water of arsenic. Take as much as you like of calx of Luna, well sweetened. Put it in a cupel, pour water over to the height of three fingers. Let it stay three weeks in dung or in the bath. Let it be well luted. Then place in sand. First distil the water slowly, then drive away the spirits. Afterwards strengthen, whereupon the Mercury ascends; let it become cold and you have it potent.

ANOTHER METHOD.

Make aquafortis of equal quantities of saltpetre, of vitriol, and alumen. Of this water take one part, in which dissolve 4 c. of sal ammoniac and 12 of sublimated mercury. Leave it to putrefy fourteen days. Distil slowly through the alembic in the cinders; then take calx of the Moon, well sweetened, pour this extracted aquafortis over, so that it may stand three inches high; let it remain three or four days in a tepid heat, and it will be changed into Mercury.

MERCURY OF SATURN.

Take of soap one part, of living calx one part. Pound them together, distil like an aqua fortis. Then take of ceruse two parts, and of oil of soap one part. Impaste well, let it stand one month in the bath, afterwards pour warm water over it, move with the finger, and you will have the mercury of the bodies.

MERCURY OF THE BODIES.

Take one pound of sal ammoniac, purified with ☉ calcined and prepared. Then place two pounds of rock (*petra*) in the middle of that sal ammoniac sublimated, below, above, and around, to the thickness of one finger; let it be compressed and placed in a glass vessel, and then set amid the sand in a jar, which has the lid well luted, and give for four days the fire of a candle, at first with one light, afterwards with two, thirdly with three, and, finally, with four lights. There will then be a black matter. Subsequently, press through the bag.

NOTE.

A tincture must be made after the manner in which oil is extracted from vitriol. Let it come over a slow fire. Then take a quantity of sublimed mercury, and prepare it over a similar fire, till it shall have become white. Take one part of the filings of the body of Luna, with two parts of the Eagle and of sal ammoniac. Mix them well in a crucible, which seal, and set over a good coal fire. When the contents are completely melted remove them, let them cool, and then press through a cloth. Then take mercury; let it remain in

the cloth ; expel thoroughly by means of Saturn, take a portion of mercurial water and a portion of running Mercury. On account of the low temperature, take care to cover the body produced. Its formation must take place in the water. Afterwards effect its digestion, sealing well, until a powder results. Dissolve this in the cold and coagulate it in the warmth. Perform this twice at least, and you will have a powder which is potent for tinging.

AGAIN.

Take vitriol, and pound it thoroughly. Place it in a glass vase, well covered so as to prevent exhalation. Set it above the furnace and keep up a slow fire below for a whole day, and you will find it turned into water. Then take filings of Mars, well washed in sweet water until all the vitriol depart; after which pound heavily in the mortar. Sprinkle the said filings with water of vitriol, then leave to dissolve for two or three days, whereupon there will result a calx of those filings, but at the bottom of the vessel you will discover Mercury.

MERCURY OF THE BODY.

Make aquafortis out

Of Vitriol i. lb.
Of Salt Nitre i. lb.
Of Calcinated Alumen ½ lb.

And if the alembic becomes red, take the red spirits separately; in it dissolve the body of the sun and moon, so far as they are capable of dissolution. Of the same take one part, and four parts of extracted tartar, with quintessence of wine as aforesaid. Or, put the hot tartar into the quintessence to the extent that the quintessence will receive it. Of the same quintessence, together with the extracted tartar, take, as said above, four parts. Then pour the aquafortis, with the body, into the quintessence, for the first time by drops, and set it in the bath for eight days. Then boil it clear, that no dross may remain with it. Extract this once, and again pour on (the aquafortis), until it becomes a transparent oil. Then it is genuine. Next take the earth previously stirred, and extract its phlegm into the sand. Then give a subliming fire, whereupon the body will arise. Cleanse it and make it living in vinegar or boiling wine. Place in the same Mercury the aforesaid oil separately until it is all brought over ; then it will tinge.

MERCURY OF THE BODY.

Take of Sublimated Mercury four parts,
Sal Ammoniac two parts,
Mercury of Venus, or preferably Salts of Urine, two parts,
Calx of Luna pounded with the salts.

Let them remain in putrefaction for eight days.

ANOTHER METHOD.

Take of calx of Luna pounded with the same quantity of sal ammoniac. Sublimate three or four times. Then wash the sal ammoniac from it. Drive the calx through a retort with a small fire, and you will have mercury.

Augment.

Take of corporal mercury four parts, and of fine Sol or Luna one part. Make an amalgam in a copper vessel, with an ordinary bath. Then leave it to digest eight days. When it is fixed, augment it with common mercury again, about three times. Afterwards augment it with crude mercury (but perhaps mercury sublimated and rectified is the best). Do this continually, and in eight days it will also be fixed. Or, dissolve Mercury in aquafortis, then let it drive over, and you will again vivify it with that augment.

To make fixed Augment.

Dissolve Luna in aquafortis, permit half of the water to evaporate; if crystals collect, place them in a glass cup in a cellar, and an oil will be produced. Imbibe it with a small augment. Place for eight days on hot cinders with little heat, the glass being open. Afterwards subject it to a powerful fire and pulverise well.

Reduction.

Take of Minium one part,
Ceruse (otherwise litharge) one part,
The Fixed Augment one part.

Pound the three things well together. Put into a well-luted crucible, and smelt thoroughly for an hour. Then cool and clear away the regulus.

Mercury of the Bodies.

Take equal quantities of tartar and of vinegar. Put them in a phial, with long neck, into oil of vitriol. Inject calx of any metal. Stir, and leave to stand eight days. Next inject sal alkali and sal ammoniac in the same quantity as in the previous recipes. Place on dung thirty days, and you will find at the bottom calx converted into Quicksilver.

Note.

Take of Mercury sublimate half a pound.
of Sal ammoniac an equal quantity.

Pound well and put them together in a glass. Let it be well luted. Put it *in carellen*, in warm sand. Kindle a mild fire beneath. Thus it will become one (solid) mass. Remove this; pound it small; and put in a damp compartment to dissolve. Afterwards take of filings of Luna one marc. Put it in water. This also becomes water. Coagulate on soft ashes, and reduce to powder, of which inject one part upon ten of Mercury, of purged Jupiter, or of crude Mercury.

Mercury of Jupiter.

Liquefy Jupiter. Then inject the same quantity of Mercury, and thus make an amalgam. Next let them be well pulverised and thoroughly incorporated with water of sal ammoniac, tartar, salt of urine, and the same quantity of common salt. Place in a flask, well sealed up, and set in dung for twenty days, when it will be converted into Mercury.

Augment on Mercury of Saturn.

Take of Mercury of Saturn ʒi.
of Sol ʒs.

The amalgam, if kept at a moderate temperature for eight days, changes into a brown powder, which becomes the finest gold. Add to it half-an-ounce of common Mercury. Again let it stand for eight days, when again it becomes a brown or a red powder, and so on with common Mercury. The case is the same for Luna, and for Mercury of Jupiter with Luna. The whole process must occupy eight days.

Note.

Dissolve Luna in any quantity of aquafortis, and in vinegar dissolve calcined tartar. Then pour the two solutions properly together, in such a manner that none may run over. Afterwards pour it into a phial, which must be well luted at the top. Set it in horse dung to putrefy for fourteen days. Afterwards put in an (earthen) pan till it becomes inodorous. Precipitate to the bottom whatsoever adheres to the upper part of the pan, and let it cook thus until it becomes as thick as a pottage. Then let it become cold, and stir it under the tartar. If mercury collects, remove it. Then take a measure of water and gradually wash off the tartar, whereupon all the mercury will collect.

Corporal Mercury.

Take of Luna out of sweetened aquafortis ʒi.
of Sal ammoniac ʒs.

Mix. Pour over them oil of tartar, which must stand over them to the height of two fingers. Put into a glass well luted, and leave to putrefy four weeks. Extract the humidity from it. Sublimate the remainder. Whatsoever ascends is to be put in warm water, vinegar, or oil of tartar, and thus you will have Mercury.

Oil of Tartar is Produced as Follows.

Take of calcined tartar. Pour upon it the quintessence. Allow it to stand for twenty-four hours. Pour out again until at last no more oil remains in the fæces.

Mercury of the Body.

Take sal alkali, and pour upon it pure urine of youths, so that it may be dissolved therein. Distil through the filter, and coagulate. Afterwards take some sal ammoniac and twice that quantity of Mercury sublimate. Pound them together, and place them over a glass slab to dissolve. Afterwards take the water thus dissolved, and pour it into a glass. Place the glass in the bath of Mary, that the aquosity may be consumed and vanish. You must then test it by means of the blade of a knife, as you know. Afterwards place therein leaves of Sol, Luna, Venus, Jupiter, or Saturn, for the space of an ordinary day. It will then be converted into Mercury.

Mercury of Saturn.

Take of Sal ammoniac half-an-ounce.
of Calcined Saturn two ounces.
of Sal manipulum } one ounce each.
of Calcined alumen }

Mix all together. Put into a glass with a narrow neck, and underneath, at the bottom, put a quantity of genuine mercury. Afterwards place the matter on the top. Close the glass securely. Set in horse dung for four weeks. Then it will become Mercury.

Another Method.

Take of calcined Saturn, smear with sap of henbane, dry it, and smear it until it resembles a paste. Then set over a slow fire until the humidity departs. Subsequently, increase the fire, and Quicksilver will come forth.

Salt of Urine for Mercury of the Body.

Take of the urine of a man who continually drinks wine, and distil it through the bath. Completely dry the fæces. Then you will have the salt of urine. Then take two ounces of the water of life, four times rectified. In this dissolve half-an-ounce of salt of urine and half-an-ounce of calcined Luna. Pound the calx subtly with burnt salt, the more the better. Cleanse that calx with hot water. Then you must put it into the aforesaid water of life. Let it putrefy fourteen days in dung. Afterwards distil the water of life from the calx. Pound with a little oil of tartar, and it will become Quicksilver.

Mercury of the Moon.

Dissolve Luna in aquafortis. Pour in sal ammoniac. Thus Luna is sent down to the bottom. Take one part of this calx. Take an equal part of Mercury sublimate and sal ammoniac. Place in hot cinders, and in three days there will be Mercury of the Moon.

To Convert Metals into Mercury.

Take Mercury sublimated seven times, and add to it the same quantity of the purest flour of wheat. Pound them together and saturate the matter with a little pure water. Place in a vessel and subject them to a slow fire, that the moisture may evaporate. This having been done, put the matter into a circular furnace (retort) with the neck of the glass downward. Drive it by descent, and the Mercury will descend. And that Mercury being heated devours all metals, until they are reduced to Mercury.

Mercury out of Bodies.

Take of Salt of Tartar ℥ii.
Sal Ammoniac ℥i.
Calcined Saturn ℥i.
Luna or Sol ℥i.

Mix all these together and pour over them good vinegar, and let it be distilled. However, let it swim on the top (the height of) one palm or thereabouts. Seal

the vessel hermetically. Set in a warm place for a month. Afterwards place in hot cinders, and thence distil the vinegar. Next make a strong fire, whereupon the Mercury will ascend. Collect it, and use it as you will.

Mercury of the Moon.

Dissolve Luna in aquafortis. Extract the moisture, even to the spirits. Pour fresh aquafortis upon it. Do this thrice. Then let it dry. Put it with the same weight of four salts in a cellar to dissolve until it will not melt any more. Then put in a glass. Leave it to putrefy for four weeks. Then strain it off, like an aquafortis. Whatever remains behind dissolve again on the stone, putrefy, and strain as before; reduce the residue, and then take the following salts—

Oil of Salt Alkali
Oil of Tartar
Oil of Common Salt
Oil of Sal Ammoniac
} in equal proportions.

Pour all together. Then it is prepared as above.

Mercury of the Body.

Let an amalgam of any body be cooked in very strong vinegar and fixed by sal ammoniac for fourteen days, when it will become Mercury; or let it be decocted in water of eggs and sal ammoniac, and it will become Mercury in one day.

Another Method.

Take Luna or Sol, calcined or otherwise, and dissolve in aquafortis made out of one part of Mercury, one part of saltpetre, and half a part of ♀. Then cause the water in the bath to evaporate, whereupon Luna or Sol will remain at the bottom like an oil. However, to dissolve the Sun add to the aquafortis one part of sal ammoniac. Next add to the said Sol or Luna, thus dissolved, tartar and distilled water of life. When it has been seven times imbibed and dried at the same time, dilute it, and let the water of life be distilled, so that it may float on the top to the height of three fingers. Afterwards leave to putrefy for eight days in dung or in a bath. Then the water being evaporated over the fire, let an alembic be placed above and set on a good subliming fire. The living and running Mercury will ascend into the receptacle.

Augment in Luna by Count William in Sager.

To make Sol out of Luna.

Take one ounce of ♂, of ♊, and of sal ammoniac. Make a powder out of them. Put into a cucurbite, close it up with a small cloth. Set it in warm sand, so that it (the sand) may melt. Add a part of the calx of Luna. Stir to and fro, whereupon there will settle a liquid matter at the bottom. Cleanse the same from its impurity with warm water. Then take the ♂, wash it clean, and although a little silver may still be present, make no mistake in the work. Thus out of every metal you may make ☉. Take of ☉ one marc. Put it in

a glass. Pour upon it three ounces of the hereafter to be described aquafortis. Put it in the bath of Mary for six days and nights. Then extract the water and preserve the matter at the bottom. Afterwards take two parts of sulphur and three parts [the original leaves a blank], and impaste over a fire, as cinnabar is made. Pound this very small, then boil it in oil of tartar, according to the process described above, until all the sulphur be excocted hard, and do not burn. Of cinnabar add one marc to the above ♂, which is to remain in the water. Pound it together. Put it into a glass, but pour six parts of the said aquafortis upon it. Let it stand, however, in the bath of Mary, or in hot sand, for seven days, to digest. Then excoct the water and pound the matter to powder. Fix the powder by the fixation to be described hereafter. Take thin plates of Saturn and place in alternate layers with the powder. Take vitriol, saltpetre, and verdigris in equal quantities. Perlute well. Set it to glow in a fire of calcination, that is, of circulation, for sixteen days, that it may always glow gently. Then reduce it and refine it, whereupon you will have and find a great augment in the Luna, and there will be much Sol therein. To pour on the aquafortis, do as follows :—

Take of Saltpetre
of Alumen and Sal Ammoniac } each one pound.
of Alumen Plumosum, half a pound.

Make aquafortis and extract its moisture.

The Oil of Tartar.

Take of oil of tartar two pounds, and of oil of vitriol, extracted by descent, or of oil of calcinated vitriol, two pounds. In this excoct the cinnabar, as explained above.

Mercury of the Body.

Take Luna and dissolve in aquafortis. Then dissolve salt in ordinary water, so that it may become thoroughly salt. Pour such a quantity of this salt water as to look like milk upon the aquafortis. Leave for a day and a night ; thereupon the sweet moon descends and will be dried. Take ℥viij. of boiling wine. Inject ℥iiij. of calcined tartar and two of sal ammoniac. Distil through the alembic, and the crystals will pass over into the wine ; dissolve about eight parts of sal alcali ; pour this solution over the ☿), which must go over. Leave for eight days to putrefy. Take it out and extract the moisture. Afterwards lute the glass, and put it in ashes. Give it a vehement fire. Then the Luna will ascend in the form of a powder. Clear this out of the glass, and put it in oil of tartar. Thus in a single night, without fail, there will be produced Quicksilver.

Mercury of Sol or Luna.

Take tartar, dissolve, filter, and coagulate again. Place by the fire, that the aquosity may be perfectly removed. Afterwards imbibe with the quintessence four times. Let it stand twenty-four hours. After this pour away the fifth essence again and add another. Repeat the process four times. Then cause the quintessence to evaporate in the fire, and into this oil place

calx of the Sun or Moon. Then the Quicksilver, in twelve hours, will be produced, as Maulperger has told us.

OTHERWISE.

Make an aquafortis out of two pounds of vitriol, two pounds of salnitre, and one pound of alum. Take one pound of this aquafortis. Dissolve therein two ounces of sal ammoniac. When this has been effected, next take twelve parts of sublimated mercury. Then dissolve it in aquafortis. After this put the aquafortis into a cucurbite, which must be well sealed up. Leave it to putrefy for fourteen days. Next distil it, as you know. Place the calx of the Sun or Moon in the water. Then you must imbibe the ☿) three or four times in the oil of tartar, and thoroughly dry it again. Afterwards place it in the said water. Leave it to digest for several days, and the calx will be Quicsilver.

MERCURY OF THE BODY.

Dissolve Luna in aquafortis, sweeten with sweet water, next place the calx, when washed in sal ammoniac (fixed), and suffer to flow in the glass. Stir vigorously with a skewer until it becomes somewhat black. Next place it in hot water, and let the salt be dissolved, whereupon the calx will remain at the bottom. Then distil the water, and afterwards the calx and sal ammoniac. Next imbibe the calx in oil of tartar, dry it, and imbibe again. Repeat the process thrice. Afterwards pour over it the oil of tartar, that it may float on the top to the height of two fingers. Let it stand for a natural day. Then pour out the black oil of tartar, and pour another above. Do as before, and repeat the process until the oil of tartar becomes clear. Pour out the oil, and place the calx of Luna in a glass with a long neck. Pour over it equal quantities of sal ammoniac, oil of tartar, and vinegar. Leave them to putrefy for fifteen days. Afterwards place the alembic above. Distil the vinegar from the matter; then sublime the sal ammoniac. Thus there will remain at the bottom tartar, with salt of the Moon. Then take the matter, wash it with vinegar until the blackness no longer appears. Dry the matter and cover it. Place it in layers in the tigillum, with leaves of pure silver, until the tigillum be filled. Next set the box on a jar wherein is water, as explained below. Also, when you have found the extracted Mercury, imbibe it with vinegar and salt, and wash the same extracted Mercury even as common Mercury.

AND NOTICE.

Make an amalgam with extracted Mercury, by the addition of Mercury, sublimated and revivified. Let it stand by a slow fire over the cinders, and you will see Mercury ascending. Make it descend by turning the fixatory until it is fixed and remains with the extracted Mercury at the bottom. Then add another sublimated and revivified Mercury. Fix it, and again add fresh sublimated Mercury, and so multiply infinitely.

ALSO.

Invariably place a little dissolved Luna between the extracted Mercury and revivified Mercury.

Mercury of the Body.

Take of Vitriol and
of Saltpetre equal quantities;
of Calcined alum half a pound.

Make aqua fortis. Dissolve in it filings of Luna, as much as you like. Inject a little salt, and Luna is precipitated. Dry the calx. Place in a cucurbite. If there be five ounces, add two ounces of sal ammoniac and one of calcined tartar. Pour upon these strong vinegar. Let it stand on the top more than the height of two fingers. Place it in horse-dung for four weeks. Afterwards distil as aqua fortis. Then vinegar will ascend first, and afterwards Mercury of the Moon. Collect it with the hare's foot, and you will have Mercury. Take as much hereof as you wish, and put it into the egg of the Philosophers. Close perfectly. Place in a cupel of the wood of the ash. Subject it to a slow fire until a black powder emerges. Afterwards increase the fire until a white powder follows. Add to it half the quantity you require of the corporal Mercury, and the third part of reverberated calx of the Sun. Digest it until it becomes a red powder. Then you will obtain what you desire.

Extraction of Mercury of the Moon.

Take of calx of Luna one mark; of oil of Tartar and sal ammoniac two drams each (or six drams). Mix in a well-closed glass. Put the glass into cold water. Then the calx of Luna becomes solid like a cheese. Next let it stand a day and a night. Then leave it in horse-dung for three weeks. Afterwards take it out, and place it in the bath of Mary for fourteen days. Next set it for three days on cinders, that the water may evaporate, and the matter be completely dried. Then take the matter from the glass. Pour fiercely boiling water over it. Pound it about some time. Thus it will become living Mercury, and there will be scarce four parts out of one marc. That which remains reduce again.

Otherwise.

Take Luna dissolved in aqua fortis. Then dissolve tartar into vinegar in the same quantity as Luna. Pour the two solutions together by drops, lest it should crackle. Gently extract the moisture. Then extract from it a strong Mercury of the Moon. Thereupon, a greyish powder attaches itself thereto. Take it, and rub with oil of tartar in your fingers, and it becomes living Mercury.

Otherwise.

Take dissolved Luna, and dissolve tartar in the quintessence of wine. Let the quintessence be four times as much as the aqua fortis. Unite these solutions and there is a ready union, without any commotion. They combine like an adhesive tincture. Take them out, dry, and sublimate. Then the living Mercury comes forth and is produced.

Mercury.

Take Mercury seven times sublimated and revivified, as you know, and place in a warm stove-bath. Supply the same with leaves of Luna to devour.

When they have thus been arranged in the stove-bath, you will perceive that the said Luna has been totally transformed into powder, which is the medicine over the Mercury 3. [? to the third grade.] Then having thus collocated the said Mercury, you are to nourish it with common purged Mercury, so that it may digest well in its hot bath. Thus, also, common purged Mercury is converted into a powder which is a Mercury over other Mercury 3. You may cause it to revert into a body, as you know. Also, you must know that the above mentioned Mercury, if placed in dung, will for a time be converted into oil. Congelate and waxen this with incombustible oil, and its virtue will be infinitely augmented.

MAKE THE ATTEMPT, AND YOU WILL SEE MARVELS.

The process of congealing it without medicine consists in filling a strong vessel to the top therewith, the head of the vessel being closed with salt, lime, and yolk of egg. Let it be permitted to dry, and underneath let a fire be kindled from morning till night. Afterwards examine it, and should you find it fluxible, kindle a fire underneath it for another day. Then extract it, and you will have the same stone, which melts like lead, and is white as silver, nor does it differ therefrom, except that it melts quickly. Melt it again and project it into dissolved salt, until it hardens and becomes silver.

MERCURY OUT OF LUNA.

Dissolve Luna in aquafortis. Then entirely distil the water from it. Dissolve in this water the same quantity of sal ammoniac, and afterwards an equal amount of Mercury sublimate. Let it be distilled through an alembic. This is the qualified water. Place the same over calx of Sol or Luna, etc., wherein there must be dissolved sal ammoniac and oil of tartar. Mingle these together in a long-necked vessel. Let the same stand in dung or the bath, and it will be turned into Mercury.

MERCURY OF JUPITER.

Take of Mercury subl. ℥ij.
Mercury crude, ℥j.
Jupiter ℥ij.

Pound together for five or six hours. The crude will then be converted into water, and Jupiter into Mercury. Preserve all these.

Take of Luna j. part,
Common Mercury
Body of Jupiter } iiij. parts each.
Mercury subl.

Make an augment, as you know; place in the glass vessel. Apply at first a slow fire. Afterwards increase it.

OIL OF ARCANUM.

Take some honey with juniper and celandine. Distil thrice (ten times) oil of flax with sulphur, also distilled thrice (water caudi magnæ mirandæ.

Distil thrice oil of yolks of eggs, with the calx of eggs. Let lb. j. each of them be mixed together, and let these species be added:

Take of Lime Calx, Egg Shells — each lb.j.

Nitre, Colcotar, Alum, Crude Tartar, Antimony — lb.s. each.

Distil and renew the prescription thrice. Afterwards take of this oil lb.j., of oil of tartar and antimony, with boiling wine extracted and precipitated to the bottom, lb.ij.; of oil of antimony, sublimated, distilled, and red, xiiij parts of a lb. (j. quartale); of red species of aquafortis lb j. Let all these be mixed together into one vessel of good glass. Afterwards take j. quartal of sal ammoniac, of salt petre, of fused salt, all thrice prepared by the calx of cementation, with continual dissolution in red vinegar, and by distillation through a filter, and coagulation with crocus of Mars congealed and five times fused. Of alcali of corrected tartar, and of alcali of corrected soot lb.s Of red arsenic sublimated, dissolved, and congealed, lb.j.; and of the aforesaid oil as much as there is. Let all these be mingled together and dissolved into a glass, and let it become a red and very thick oil, gilding all things, and everywhere making marvellous ingress and tincture of the Sun. But this is not yet perfected. In order to strengthen it, dry into it by the distillation of the alembic these spirits:

Take of Antimony, j. quart.

Colcothar, Salpetre, Calcined Alum — lb. j. each.

Do this thrice; next remove the moisture by means of the bath, and an oil will remain, which it will be lawful to call the arcanum of Christ.

Water of Mercury—A Very Great Arcanum.

Take of Mercury from salt of tartar, as often as it does not ascend, this takes place the seventh time; likewise, take sublimated arsenic and sublimated sal ammoniac, lb.j. of each. Let them be imbibed frequently with oil of the salt of alcali of tartar. Afterwards dissolve over marble into water. Then take as much as there is of this water, and of sublimated sal ammoniac as before. Of Mercury and arsenic take lb.j. Again dissolve into water. In this water dissolve ij. ounces of Luna and one quartal of alcali of soot and of best prepared salt. Mix them together, and coagulate them, by means of an exceedingly gentle fire, into a stone. Imbibe this with water of eggs. Correct and fix very many times. Dissolve again, and coagulate. Imbibe again, and do this eight times or more, when you will have the miraculous stone of tincture. Also let it be imbibed to the red with the oil of the

arcanum, so that it may become red; for this is an arcanum not known to all, because it coagulates and fixes Mercury into genuine Luna.

Notable Elixir.

Take lb.s. of dragon's blood and lb.j. of most white *sal peregrinum.* Dissolve it seven times in water of pomegranates. Let the calx be imbibed, and then frequently dry and desiccate. Afterwards dissolve sal ammoniac in water of atrament. With this water pound the calx. Dissolve for three days. Afterwards congeal in ashes to the elixir. One part changes thousands of prepared Saturn into best Sol, which will be better than the mineral.

Elixir at the White.

Take of fixed sublimated Mercury j. part, and of white sublimated arsenic half a part. Imbibe both with water of eggs, and desiccate five times. Pound as many times, and as often again desiccate, when it will ultimately be converted into a white crystal plate. Take of the same one part. Take one part of this recipe and project over xxx. parts of Venus, or iron burnt through arsenic, and reduced to a solid substance, when it will become silver, perfect under any test.

Another Elixir.

Take of Fixed Mercury sublimate lb.j.

Fixed arsenic } lb.s. each.
Sal ammoniac }

Imbibe all these with water of eggs, afterwards place in a glass, and on the top as much of the water as floats above. Close up the glass vessel with wax. Place it in warm horse-dung for fifteen days. Afterwards take it out, and you will find the whole dissolved into water. Take this water and distil through the alembic, Next put the water thus purified in a small vessel. Then devitreate and place over cool ashes; leave it there till it is converted into a plate, which plate does not fear the force of fire. It is upright and deep, tinging and permanent; j. part changes 100 parts of every body into the purest Luna.

Note.

Water of eggs distilled seven times, and sulphur imbibed therewith over the stone make it fixed and fluxible; thereby Mercury will be congealed.

Elixir for Luna.

Take some calx of eggs, calcined tartar, and alumen Iamenum. Dissolve them in boys' urine. Then take that powder and dissolve at the bottom of a crucible. Over that powder set Mercury sublimate, so as to completely close it. This having been effected, perfectly close the glass crucible with another crucible by luting it so that the smoke may not escape. Then place by the fire for one hour, and it becomes beautiful Mercury of Luna, which then undergoes increment.

Concerning Luna and Venus.

Place them in layers and layers with sal ammoniac and laminated Venus. Also lute the tigillum thoroughly, and place on the furnace for three hours.

Afterwards wash the plates with water, and distil by descent; that is, let them be granulated *per scobam*, if not sufficiently whitened. Repeat the process as before; after, add two parts and a half of Luna, and it will stand any test. There is a very great secret *in particularibus*, in which every one may recover their outlay.

Notable Elixir.

Take of Mercury ij. ounces.

Jewish stone
Sal ammoniac
Common salt
Antimony
} one half ounce.

Pound each separately and mix. Set in layers, first the powders, and the Mercury on the top. Let the tigillum be in such a manner luted and placed to digest that the ☿ does not escape. Arrange coals above and beneath. Afterwards take and place on the cineritium; then purge, and you will have perfect Luna.

Removal of Copper.

Take of Oil of tartar
Arsenic
} part j.

Place over fire in the cinders in a glass vessel, so that they may become one mass. Pound it, and dissolve it over marble into water. If there be lb.j. of this water, inject j. of white and blind arsenic. Congeal in a glass vessel with a slow fire, of which elixir j. part whitens vj. of copper, and as much of Luna, whence you will rejoice.

Note concerning Sulphur.

Take very strong lixivium in any quantity. Distil through a filter. Place in devitreated matter with gallow-stone. Add as much sulphur as you like, and it will be a thin pottage. Leave it to stand for two days. Afterwards cause it to boil for two days, when it will become blood. Distil through the alembic, and you will find at the bottom the sacred divinity. It converts Venus into Sol. Mix it with natural Sol. N.B.

Malleable Mercury.

Cause sulphur to boil in oil; then pour in Mercury. Immediately take it out, and you will find a mass which a hammer will flatten. It does not fear the fire, and you will be able to mingle it with Sol and Luna, with a third part—[lacuna].

Fixation of Mercury.

Take equal quantities of sal alcali, ammoniac, and nitre. Let them be imbibed well with boiling wine and water distilled through the alembic. This compound fixes Mercury.

Note concerning a Pyxis.

Construct a pyxis of iron. Inject Mercury with the sap of gladiolus. It will then audibly groan. When it ceases to cry out, put j. lb. of Mercury into

the tigillum, j. lb. of pure tin, and half an ounce of pure Saturn ; let them be dissolved together. This silver stands all tests.

ELIXIR MAKING AN INCREDIBLE QUANTITY OF GOLD.

Take ℥iij. of new Saturn and ℥j. of pure Sol. Melt them together. Place on the cineritium in a cask, with Saturn, from morning till evening, until you have expended iij. lbs. of living sulphur, and you will see the same. Out of this project two parts of aqua fortis, and you will have the matter from gold of the usual colour and frangible. This is the medicine, and is called the elixir for the sun. Place j. part over x. of Luna, and it will be ☉. Should you place the first part over two of Luna, there will be *aurum florenorum* transcending credibility.

WATER OF MERCURY.

Place iij. parts of Mercury subl. and iiij. parts of sal ammoniac in a luted glass vessel. Let it become a mass and dissolve this in oil. Take that water and close well ; also add j. part of filings of Luna. Dissolve the whole together in water. Then take that water and congeal. One part changes at least lxvj. parts of Jupiter or crude Mercury, which will be the best Luna, standing every test.

TRUE ELIXIR.

Take lb.ij. of purged Jupiter and lb.j. of purged Mercury. Dissolve Jupiter, and put in lb.s. of Mercury and arsenic sublimated. Afterwards pound them with lb.s. of sal ammoniac. Place in cucurbit with the addition of the strongest vinegar. Keep that which is distilled. Afterwards increase the fire until it be sublimated. Also pour vinegar over them again, and proceed as above seven times, or until nothing more be sublimated. Then leave to decalcine. Dissolve in vinegar and distil. That which remains at the bottom pound and dissolve into water over the stone, and coagulate in due fashion. j. part changes xxx. parts of Venus, which passes through every test.

FOR LUNA.

Take of Arsenic, Tartar } lb.j. each.
Living calx, Prepared salt } quart.j. each.

Let them be pulverised and placed in a luted vessel over a slow fire. Afterwards break and collect the powder. Next dissolve j. lb. each of Luna and Venus. Also project ℥s. of this powder, and it will be good Luna.

TINCTURE FOR LUNA.

Take of Salt thrice sublimated
Mercury six times sublimated
Calcined Luna
Water of Sal ammoniac
compounded and rubified } lb.j.

Imbibe altogether in a glass vessel. Afterwards place in cucurbit and distil at first with a slow fire, next with a moderate one, for the space of three days.

Then if it shall have cooled, extract, and when it has thus been distilled, add another pound of water of sal ammoniac, again dissolving as before, restoring to it its water, which had been distilled from the fæces, so that it may be thrice imbibed or distilled, or till iij.lb. of sal ammoniac be consumed. Afterwards you will find at the bottom of the vessel a crystal plate which tinges and is stable and permanent. One part of it tinges 1,000 of Venus into Luna.

To remove Venus.

Take iiij. parts of oil of tartar, and j. part of white arsenic. Imbibe them repeatedly until the oil has been consumed. Afterwards dissolve vj. parts of purged Venus with glass and of elixir part j. Make Luna. Let there be added afterwards iij. parts of Luna.

Luna out of Mercury.

Take of Living Mercury
Salt fixed by calx and dissolved eight times
Alcali of soot
Crude tartar
} part j. each.

Pound, mingle, and burn. Mix after combustion. Place in layers, and let them melt for four hours. Then Mercury will yield Luna, and it will be perfect Luna.

For Luna.

Take a tigillum well luted, and at the bottom place sulphur. Also suspend Mercury in a hempen bag above; next let it be everywhere luted. Afterwards set on the fire for one day, or until moisture ceases to appear. The smoke of sulphur then passes into Mercury; next repeat the process and make ij. (*sic*). Afterwards take of this Mercury one half ounce, and project over lb.j. of purged Venus, when it will be natural Luna.

Elixir for Sol.

Take Vitriol
Crocus of Mars
Flower of Copper
} j. part each.
Prepared sal ammoniac.
Prepared hæmatite.

Let them be pulverised and mixed together. Dissolve in a tigillum until the aquosity is consumed, and it becomes a powder. Afterwards set in a glass vessel on horse dung for several days, or in a damp cellar. Let water be produced. Congeal it with a slow fire. Afterwards take j. part of Sol and ij. or iij. of Luna. Melt, and over xvj. parts of this Luna project one part of Elixir. Thus, the more it is burnt the better. It will be perfect and most beautiful gold.

Cement.

Take of Antimony, lb.j.
Salpetre, lb.ij.
Calcined tartar, lb.j.

Melt together, and inject lb.j. of pounded ✳ (otherwise tin), and immediately let it be melted. Dissolve again, as above, and melt, until it is very red, one part over two parts of Mercury in flux (of Venus perhaps).

Oil of Antimony.

Antimony converted into oil in a very strong lixivium out of clavellated cinders fixes spirits.

Fixation of Mercury into Red.

Take equal quantities of salt tartar and sal nitre. Make a strong lixivium. Inject sublimated Mercury. Make it boil, and when it has dried up, pour lixivium in again until it is rubified. Waxen it with calx of Luna.

To Permanently Rectify Mercury.

Take saltpetre, sal alkali, cinnabar, alum, flower of copper, and sulphur. Let it be imbibed with water of life. Afterwards let it become aquafortis. This water dissolves Mercury, and all bodies with Mercury will remain in the form of a crocus colour; if it has been calcined half a day, it will be redder than cinnabar; it does not diminish in weight, and is dissolved into extremely red water. Afterwards coagulate and, when coagulated, reduce with saltpetre; it thus becomes gold. If further coagulated and dissolved, one part tinges parts (number omitted) of Luna permanently.

Projection of Luna.

Take of Cadmia, Salpetre, Calcined alum } ℥j. each.

Melt in luted tigillum one hour, and you will find ℥j. of Sol.

Note.

Oil of iron colours citrine, the oil of chalybs red, and that of lead red.

Best Borax.

Take Alum, Calcined tartar, Sublimated salmiax } equal quantities.

Let them boil in water together; afterwards let them be strained through a tightened bag. Then let them boil in alcali. You will subsequently have Borax, which dissolves all metals.

Perpetual Augment.

Take j.lb. of Luna, cemented and purged by means of salt, and iiij.lb. of Mercury purged with salt. Make an amalgam, place in a phial over cinders in a cupel on a slow fire (and avoid closing) for one day, that the vapour may evaporate. Afterwards place over the amalgam as much as there is of fixed saltpetre with yolk of eggs; imbibe thrice or more times over the fire; cook until it is dried up. Imbibe again as before until it be fixed. Afterwards lute it well, and suffer it to stand in a slow fire for eight days. Take out the matter, when you will find it white and hard as crystal. Pound this well; add half the weight of purged gold; place again in glass vessel, as above, and

once more superpose the same quantity of fixed saltpetre; permit the moisture to evaporate, as before, and set it to stand for six days. So the process goes on for ever.

Reduction to the Same.

Take the matter and imbibe the same with oil of albumen of eggs, for the white stage, but for the red with yolk of eggs. Add the same quantity of borax to the tigillum. Melt, afterwards cement.

Note to the Same.

Cinnabar distilled by descent is the best Mercury.

Another.

To reduce it with raw albumen of eggs, pound and let it become a hard paste. Cause this to melt with borax, as above.

Water of Nitre.

This retains Mercury.

Fixation.

Take White Tartar, White Arsenic, Fused Salt } in equal quantities.

Boil well in vinegar; add the same quantity of pounded Venetian glass. Let it become a powder. Take one *part* of it, and of the amalgam two ounces. Place in a luted tigillum, and let it melt for one hour, afterwards proceed by cineritium.

Permanent Elixir for the White by Cineritium.

Take of Sal Ammoniac, Sublimated Mercury } ½oz. each.
Live Calx, 1oz.

Mix together, place in a glass vessel, and permit evaporation. Afterwards lute and increase the fire, so that it is kindled, and you will find Mercury over the calx with sal ammoniac; also pour over warm water. Next, cause evaporation; again pour on warm water, and it will be possible for the tartar to dissolve. The calx will then arise from the Mercury, and the Mercury will remain at the bottom like snow. Perform this operation twice, and let the sal ammoniac and Mercury be fixed. Afterwards take half an ounce of calx of Luna out of aquafortis, and half an ounce of this powder. Dissolve each of these by itself in aquafortis, and afterwards abstract the aquafortis. Place the matter in a glass pitcher. Pour over a strong alkaline lixivium and coagulate, and so again, etc. Do this four or five times. Afterwards put the matter in a glass vessel, and again pour over it aquafortis and abstract. Do this three times or more, and it will be a hard stone. Also afterwards add Luna; then it preserves the white copper in the lead over the capella. Also, over Mars take half an ounce of white powder of copper. Let it be projected in flux. Also that powder fixes Mercury which has been coagulated without metal.

NOTE.

Take Saltpetre
Alum
Sal Ammoniac
} in equal quantities.

Make a powder and a pottage, so to speak, with water, and *unge clinodisa*, which are mixed with gold and silver, and it will be a gold colour.

PROJECTION OF LUNA.

Take of Burnt Alum
Sal Ammoniac
Vitriol
} eight ounces.
of Red Jaspis, ℥iiij.

Cause them to melt together and become a powder. Take ℥s. of this over eight ounces of Luna, and you will have much gold in eight ounces of Luna.

FIXATION OF CINNABAR.

Take Cinnabar
Litharge
Antimony
} ℥j. each.

Place in an iron pan to boil with strong vinegar. Arrange in layers with Luna. Let a tigillum be luted. Place it by a slow fire for two hours, and the cinnabar will be fixed into gold ; but finally make a fire in a wind furnace.

PRODUCTION.

Take Good Gold
Granulated Venus
Red Sulphur, sublimated by Crocus of Mars
} j. part each.

Melt the gold and copper. Project one part of sulphur, and when it is consumed in the fusibilum, take the regulus and add again the same quantity of Venus. Once more pour on three parts of sulphur. Melt again. Take the regulus and add copper, as before. Do this thirty times, and it will be perfect gold, and of the best colour.

NOTE.

I have written as many praises of this powder as I could.

ALSO.

Grade together with Sol white and red melted together.

PARS CUM PARTE OF MASTER THOMAS.

Take equal quantities of Sol and Luna. Make plates of them.

Take Hæmatite
Sal Ammoniac
} ℥j. each.
Evaporated Vitriol
Saltpetre
} ℥iij. each.
Bolus Armenus
Alum
} ℥s.
Verdigris, one-sixteenth *part.*
Tutia, 16 *parts.*

Make a most subtle powder. Afterwards take lb. j. of vitriol. Distil it. Imbibe the powders in a thrice-devitreated jar. Afterwards take powders and make a layer in the tigillum as thick as a coulter, after having saturated the Luna in the aforesaid water. Thus arrange layer over layer. Perlute the tigillum and set in a circular fire for three hours. Make this cement thrice, and you will have the Sun in all your operations. Then take this gold with three parts of Luna well weighed. Place in aquafortis, and it will be converted in the following manner.

AQUAFORTIS, WHEREIN LUNA, WHEN PLACED, BECOMES GOLD.

Take Vitriol, Saltpetre } lb.s.
Alum ʒj.

Precipitate aquafortis with crude Mercury. It afterwards converts Luna into Sol.

ALBATIO BAMBERGENSIS.

Take any quantity of Jupiter, and the same of living Mercury. Make an amalgam. Then take sulphur if for the red stage, or arsenic if for the white, and sal ammoniac, all in equal quantities. Pound thoroughly. Place in a well-luted vessel. Sublime for half a day with a slow fire, afterwards with a fiercer fire for a whole day, next with an exceedingly strong one for two days. Then take what is sublimated, and set apart. Let that which has not been sublimated undergo a further process. Then sublime the same from salt well prepared, twice or thrice, until it becomes as snow. Take two parts of these species and one part of filings of Luna. Arrange in layers in a glass vessel, which must afterwards be luted. Burn with a fierce fire, so that they may be melted together. Afterwards pound, dissolve, and coagulate, at least three times, and it will be an Elixir of which one part tinges eight parts of purged Venus into best Luna.

ARSENIC SUBLIMED BECOMES AS LUNA.

Sublimate it from calx of eggs, and it becomes just like silver.

NOTE.

Sublime Mercury sublimated from Saturn; it makes lead like Luna.

FIXATION OF LUNA.

Imbibe cinnabar with oil of tartar, afterwards cement Luna, melt it with borax, and immediately *in coloritio*. [This process seems to be unfinished.]

SUBLIMATION OF MERCURY.

Take aquafortis, in which dissolve as much Mercury as you please. Then add the same quantity of common salt. Abstract aquafortis through the alembic. Then increase the fire, so that the Mercury may be sublimed; an exceedingly fierce fire must then be employed, arrange in layers with that Mercury and plates of Jupiter on a humid place, when the Mercury will become water.

FIXED LUNA.

Let Luna be cemented for six days in crocus of Mars. Let it not be further affected by aquafortis, and it will take the tincture.

FIXATION OF MERCURY OUT OF R.

Take Mercury par. vj.

Borax ʒiiij.

Impaste properly together until the Mercury is completely invisible. Pound and sublimate until ascension altogether ceases, repeating the process till this takes place; then cool. Break the sublimatory. Fulminate that which is found at the bottom thereof. You will then have the best Luna; also in the first eight ounces of this Luna you will have 2½ ounces of best Sol.

NOTE OF MASTER ALBERTUS.

Prepare salt by frequent dissolution in fire, melting and congealing. Repeat this until it melts like wax, fifteen times employing a filter, etc. Also afterwards take iiij. parts of borax, and pound it with well-calcined alum. Pound it again, even seven times. Then take the said salt and white borax in equal quantities. Put it in a glass vessel moderately warm. Then a tincture is produced from this. One part of it is projected over 30 of Mercury, and the same becomes Luna, commencing to flow immediately with the tincture. Blow strongly so that the Mercury may make its way through. Melt, and you will have Luna. *Notice carefully.*

FIXATION OF LUNA.

Dissolve eight ounces of Luna in aquafortis. Afterwards congeal. Add to this calx the same quantity of Mercury sublimated. Sublime 15 times, as frequently imbibing and drying, until all that is there is imbibed. Afterwards reduce the dross into a body with oil of tartar, and you will have Luna to the weight of the gold, and it stands in cement.

NOTE FOR LUNA.

Take a globule of earth and fill it with Mercury. Put it into Saturn for three or four hours. Afterwards Saturn attracts Mercury to itself. Over this Saturn and Mercury project fixed borax with saltpetre into the tigillum. Next fulminate in a furnace of wind. This will test the Luna.

WATER OF MERCURY.

Take equal parts of tartar and mercury, sublimate thrice, and pound on marble. Then dissolve. The metal is dissolved in that water in one hour, but the matter is to be distilled in water. Afterwards take of pure gold and pure Luna equal parts. Dissolve in the aforesaid water. Then take one part each of borax and camphor. Reverberate one-half of these, distil the water from them and keep it. Next take one drop of this water and project it in the water wherein the body has been dissolved. Place it on a slow fire for seven days, and it will become milk. Replace this, and make in turn two or three drops. Repeat this process until it no longer grows white, but another red liquid remains. Coagulate this; then take one part of the white powder and

project it over thirty parts of Venus, when it is rendered white, and answers every test. Finally, take the red powder, project it over the above-mentioned white, and the whole will become red.

Secret Note.

Take filings of Venus and put them in wax for three days and nights. Take one pound thereof, four of vitriol, and five of sulphur. Mix; lute between two bricks in a carefully watched furnace, and note the result.

In the Distillation of Vitriol for Fixation.

Place camphor in a glass vessel containing oil, and it will become fixed.

Note on Pars cum Parte.

Pour *pars cum parte* several times into blessed oil. It gains in grade and acquires great softness.

Rubification.

Take vitriol and pound it small on marble. Imbibe it with wine to the consistence of a paste. Then take two stone dishes, one somewhat larger than the other. Place therein imbibed vitriol, and lute with a material composed of dung and gravel. Put it in a furnace for the space of a natural day, and the thing is done.

The Purification of Tin.

Project three or four times over oil of tartar.

Note.

Oil of tartar is that which is made for common use; but if a plate of copper be frequently placed in it, it becomes white.

For Broken Coins.

Take sal ammoniac, place it in the crack and the lesion disappears over a coal fire.

Sal Ammoniac is made thus.

Take twenty parts of urine passed by a wine-drinker. Skim and let it cool. Add one pound of sublimated dung and two pounds of salt. Mix these and let it stand for three days; then boil until coagulated.

For Reddening Crystal.

Take olive oil and quicklime in any quantity, and shake them well together. Then take two parts of salt alkali and one part of common salt. Mix these so that the oil shall float on the top to the depth of one finger. Distil over a slow fire and let it cool. Set a light to it, and, if it burns, the process is not complete. Repeat until it no longer kindles, and then it is made ready for rubifying the crystal.

Fixation of Mercury.

Sublimate with quicklime until complete.

For Gilding.

Distil the yolk of eggs. It is converted into a red oil which gilds money and lasts for ever.

Sal Ammoniac.

Take one pound of sal ammoniac, pour on it acetum and wine, distil by means of a filter, and add ten pounds of sublimated dung. Set it to boil, when it will be desiccated. Pour urine on it again until a twentieth part of it is consumed. Then add pure water and dissolve. Take the clear water and lay aside the dregs. Boil and dry, either in the sun or in shade.

Sal Borax.

Take calcined tartar. Pour on it warm water. Pass this through a straining-bag until the upper part is clarified. Then take common salt dissolved in water, add one part of this, and afterwards boil in an iron dish until it is thickened. Then place in a vessel and desiccate until it becomes friable. Thus you will have borax, which place in glass.

Another Method.

Take one-third part of crude tartar. Sift thoroughly, and add six parts of prepared common salt. Boil for a day, until it is converted into water. Set to cool, and distil by means of a filter, afterwards let it boil until hardened, and you will have the very best borax.

Sal Borax for Goldsmiths.

Take one part each of starch mastic and sulphur. Of this mixture take two parts, pulverise and boil until thickened. Set it in a glass vessel to putrefy for four weeks, and you will have borax.

Sal Borax.

Take Calcined Tartar, lb. $\frac{1}{2}$.
Quick Lime, lb. ij.
Wood Ashes, lb. j.
Crude Tartar, lb. $1\frac{1}{2}$.
Prepared Common Salt, lb. vj.

Boil all together, distil in a filter, and coagulate. Thus is obtained excellent borax.

Lazurium.

Take one part of sal ammoniac, two parts of sulphur, and two of mercury. Mix, and proceed as directed above with cinnabar, until a purple smoke ascends ; then leave off.

Another and Better Method.

Take lapis lazuli. Heat and pound it. Then take two and a half parts of pitch, goat suet, and oil of laurel. Dissolve these together.

Another Method.

Take sal ammoniac and pulverize it. Amalgamate this with four parts of mercury, and place it in a glass vessel closely luted. Sublimate for one hour. Then gradually increase it to the smoke of citron wood ; afterwards diminish. Finally, you will discover lazurium at the bottom.

Another.

Take sulphur and mercury. Amalgamate as above, and sublimate.

Flos Aeris.

Take filings of Venus, urine, and sal ammoniac. Mix them together, desiccate, and imbibe a second time.

Cinnabrium.

Take sulphur, dissolve one part thereof and two parts of mercury. Cool them, place them in a glazed vessel, and sublimate. First of all a purple smoke ascends, and afterwards a red one. Then cease.

To make Marble.

Take quicklime and extract the lixivium with wine. With this is imbibed calcined and pounded flint. Forthwith it is susceptible of colour.

Corals are made thus:

Take of minium one part and of cinnabar half a part, but of quicklime and lime of flint five parts each, with a sufficient quantity of the above-mentioned lixivium and the white of eggs. Add as much salt as you please, and finally boil in linseed oil.

Factitious Corals.

Take of good gypsum two parts, pure lime half a part, minium and cinnabar half a part each, white of egg quant. suff. Form and dry.

Pearls from Chalk.

Put chalk in the fire until it is friable. Mix with white of eggs and shape. Then harden, and afterwards moisten with spittle. Whiten with silver tablets and again harden with fine powder, either in the sun or over a coal fire, as you please.

To make Pearls better than Natural Ones.

Take mother of pearl and pulverize it very small, afterwards adding fine flour. Mix and temper this with Maydew. Shape according to pleasure. Then give them to hungry pigeons to eat. Wash their dung, and you will discover very fine pearls. But notice that the pigeons should be kept for three days without anything to eat.

Another Mode.

Take mother of pearl, boil and wash it well. Then take the same quantity of crystal, pound it small and mix with the white of eggs. Shape and dry. Afterwards boil thoroughly in linseed oil, and wash with white wine. Afterwards dry in the sun, or over a fire.

Note for Luna.

Take of arsenic and of sublimated mercury one part each, and sublimate them by themselves. Add an equal weight of quick lime. Imbibe with water of fixed sal ammoniac, then cover with wax and place on the fire. Sublimate thrice, and keep in a closed vessel. Afterwards desiccate it, and project one part over twenty-five of purified Venus. Thus Luna will be produced.

Ruby.

Take 4lb. of strongest acetum, not distilled, and in it put one ℔ of atramentum. Distil this after the manner of aquafortis, and at last with a

very strong fire, so that the spirit may ascend. Take four parts of this acetum, and place it in a glass vessel, into which put one part of filing of Mars. Stir it with a rod, and the mixture begins to boil without fire. Set it apart to stand and you will see a pellicle form and float on the surface. Collect this and put it on one side. Then stir the mixture again for an hour, and once more collect the pellicle. Do this as often as necessary, and put this matter, which is yellow, like gold, into a firmly luted crucible, to be calcined for twelve hours. Then take it again, pound, and dissolve it in fresh acetum as before. Collect once more, as directed, the pellicle floating on the surface; again dissolve and calcine as above, and repeat this process three times. Afterwards dissolve in aquafortis, which dissolves gold, and reduce the water three times. Then it becomes a medicament which tinges Luna to Sol. One part thereof fall upon two hundred parts of Luna.

Aqua Ardens: or Water of Mercury.

Take half a pound of sal ammoniac, a sufficient quantity of tartar and live sulphur, with one pound of common salt, and a quart of good white wine. Place all these in a well-luted vessel and submit to the fire, perhaps somewhat severely. Then keep the water well away from the wind. This purifies metals and converts mercury into pure Luna.

Water of Sulphur.

Take $\frac{1}{5}$ lb. of sulphur and $4\frac{1}{5}$ lb. of saltpetre. Place these in a well-luted vessel, and put in the ashes for twenty-four hours. Remove and pulverise. Then mix one-fourth of this with 3 oz. of pure water; whereupon the water is turned to a red colour, and money can be coloured therewith into the semblance of most beautiful Sol.

Aurum Musicum.

Take of tin and of sulphur each one-third part, amalgamate, and pulverise. Afterwards wash, first with lixivium and then with pure water, until no dirt comes off. Then dry. Next take two pounds of Mercurius vivus and the same quantity of sal ammoniac. Mortify the mercurius with acetum, and at the same time wash it, as before. Then place it in a well-luted phial, so that the glass vessel be half full. Heat it in sand for four hours until you see a golden smoke ascend.

Wonders of Antimony.

Take antimony and purify it with calcined tartar. Afterwards make aquafortis. Dissolve it in the water, and congelate, either in the aquafortis or by itself. Then it will be an oil incapable of mixture—oil or stone—in the proportion of one part on three parts of Saturn; and it will be silver answering perfectly to every test.

Wonderful Aqua Ardens.

Take old red wine; and put in a glazed vessel one part of auripigment, half of quick sulphur, and a fourth of quicklime. Mix together; afterwards distil by means of a rose alembic and the thing is done.

THE VIRTUES OF THIS WATER.

Whoever places his finger in it is burnt as by a light. In like manner, a rag placed in it burns like a candle, and is not extinguished by water.

AUGMENTATION.

Make an amalgam of mercury and Luna. Then fill a vessel with quicklime. Take equal parts of salt of alkali and of litharge. Put layer on layer and let it stand for a day and a night. Afterwards let it dissolve.

ON RED VENUS.

Take equal parts of crushed beans and of crude tartar, together with a quantity of tutia exceeding one of those parts. Mix all well together and place layer upon layer with plates of Venus which have been laid all night in acetum. Pour it over the layer, and let it shape wherever it can be poured. You will see the result.

CALCINATION OF JOVE AND SATURN TO WHITE.

Make layer upon layer with quicklime and the above-mentioned metals. Cement by night, then take again, dissolve, and pour into a lixivium of quicklime, acetum, and vine-ashes. It will then be as Luna.

TO REDUCE CALCINED BODIES TO THEIR ORIGINAL MATTER.

Take one-fifth of the metal and two pounds of borax of tartar. Pour together, and place in an iron vessel. It will be as Luna, and can easily become Sol and Luna if first imbibed with oil of tartar.

CALCINATION OF SOL AND LUNA.

Take filing of Sol and place it in acetum for nine days. Then put it in water of sal ammoniac. Imbibe well; then desiccate, and continue the process as long as you please.

THE DEVIL IN ALCHEMY.

Dissolve, fix, coagulate, and reiterate.

WATER OF SALT OF ALCALI.

Take alkali, sal ammoniac, and egg-shell. Pound together with good acetum, and dissolve at the same time.

PURIFICATION OF SULPHUR.

Take pounded sulphur, pour on it acetum and wine, let it boil for a day, and skim it. Then pour in urine and boil for two hours. Do this until it ceases to froth. Whatever body there is does not float in the urine, but the urine is clear and sufficient for the purpose.

THE SUBLIMATION AND FIXATION OF SULPHUR, SO THAT IT BECOMES WHITE.

Take of sulphur as much as you will, and pound it. Pour acetum upon it. Heat it until all fatness is removed, and then lay it aside. Secondly, heat it as before in boys' urine, and draw off the fatness. Next, pound it with prepared alum, place it in a sublimatory and sublimate for three hours. Then the white sulphur ascends like snow, and flows down upon the coals just as a snow storm.

Oil of Vitriol.

Take as much vitriol as you will, and distil it by descent. It renders a bright green oil, and is called milk of mercury. But it must have a large fire; it is like in its nature to balsam.

Another Method.

Distil vitriol with an alembic over a very strong fire for three days and nights. Let it be imbibed thrice with its dregs, and be distilled from them. Afterwards distil five or six times, and thus a great arcanum is produced.

Correction of this Process.

After the third distillation mix with it a half portion of vinum ardens, and distil as aforesaid.

Another very Expeditious Mode.

Take vitriol and distil it vigorously by descent, afterwards by an alembic, and then by a balneum Mariæ. Finally, do this twice or thrice by means of a retort, and the method is subtle. Some say they have seen the oil of vitriol distilled until a whiteness like milk supervened.

Preparation of Common Salt.

Make layer on layer with quicklime. Let it be cemented well, distil by a filtre, and coagulate.

Another.

Take urine, quicklime, and salt; reduce to water and boil. Then put them in a vessel, project to water, and coagulate. Place again in the vessel, do as before, and it is ignited at length whether it suffice or not.

Fusion of a Marchasite.

Take three-tenths of the Marchasite, ½ of Saturn, iij.♃ of Venus, and iiij.♈ of Scoria of Iron. At the same time it is poured upon iiij. of Luna, ♉ of Saturn, and ♊ of Venus.

Alkali is made thus:

Take wood ashes, quicklime, and the ash of beans. Extract the lixivium and coagulate.

The Sublimation of Sal Ammoniac.

Take of the salt itself and of pulverised Mars, equal parts, and sublimate.

Crocus of Mars.

Take aquafortis, not too strong. Place it on filings of Mars; let it stand for some days. Then heat it over a coal fire and it is made red.

Another Method.

Take Antimony, filings of Mars, and crude tartar. Dissolve them together, and a good crocus is produced.

Sal Borax of the Philosophers in which all Metals and Glass are Fused.

Take lac tauri purified by a filter, alkali, borax, gem-salt, and goat's blood, equal parts of each. Mix with water, put in a phial, and desiccate. Then Venus or any other substance, whether metal or glass, is fused therein.

Saltpetre.

Take quicklime and warm water. Stir for six days and distil by means of a filter. Place it in ☉ until it is consumed and you will have saltpetre.

The Solution of Sol from Silver.

Take one part of calcined tartar with two parts of sal ammoniac. Place them on marble and then in a glass vessel. Then take the root of pellitory, pound it with acetum and strain it off. Mix this in the above mentioned water, and put the water in a gilded cup. The Sol is dissolved from the silver and is again reduced with borax.

The Softening of Iron and all Metals.

Take of alum, sal ammoniac, and tartar, equal parts. Put in good acetum over a fire and extinguish the metal.

Solution without Antimony.

Take Venus which has gold in it, and sprinkle on it the following powder: put it over a fire and let it melt. Then pour into a fusibulum and you will find gold or Luna. Purify over ashes.

Item.

Take one part of saltpetre with three parts of sulphur and do with copper as above.

Water of Gradation.

Take two parts of vitriol, one part of alum, and half a part of antimony. Distil.

Fixation of Mercury.

Take a vessel, in which put quicklime *quant. suff.*, and in the middle of this lime place coagulated mercury. Heat for five hours, and it will be fixed.

Ready Method of Coagulation.

Take the pounded root and portions of the herb hermodactyl. Heat mercury, pour it over, and it will be coagulated.

The Fixation of Arsenic.

Take of tartar, quicklime, glass, and arsenic equal parts. Imbibe with oil of tartar, and sublimate in a vessel after the usual method. When the whiteness ascends, leave off.

Gilding.

Stamped money is entirely gilded in the juice of the aurearia and remains for some time.

Cement.

Take Vitriol, j. part.
Sal Ammoniac, Verdigris, Alum, } ij. parts each.
Saltpetre, ½ part.

Pound in an iron mortar. Mix over coals and a black powder will result. It gives a great smoke; and when the powder is desiccated, make layer on layer with Sol. It is graduated to twenty-four degrees.

Fixation of Saltpetre.

Take the purest saltpetre. Distil by means of an alembic and a portion of the saltpetre will remain at the bottom. Take one part of this and two parts of quicklime. Dissolve on stone, coagulate, and the thing is done.

Perfect Fixation of Luna.

Take of this saltpetre two parts and of Luna one part. Let them melt. When the saltpetre becomes like glass, increase the fire until the saltpetre is consumed. Add crocus of Mars and let it be consumed as before. Afterwards pour it through antimony as is necessary, and let it be fulminated. Then it will be Luna fixed and white.

The Coagulation of Mercury, producing Venus.

Take equal parts of Mercury and Venus as much as you like. Boil them in water for three hours and stir continually Afterwards take the Mercury, put it into a linen rag, let it stand for a night, and it will be coagulated as Venus.

Another Coagulation of Mercury.

Take an egg-shaped crucible, and fill it with Mercury. Lute it, place it in a patella, pour lead over it, and let it cool. Then take it out, and you have coagulated Mercury.

Purification of Metals.

Take two parts of antimony, and two parts each of vitriol and saltpetre. Pound well a moderate weight of filings from the metal, and cement over a slow fire for about an hour. Then let it be heated for 15 hours, and afterwards fulminated. It will be diminished one-third part.

Cement from above.

Take equal parts of saltpetre, sal ammoniac, verdigris, common salt, and alum. Pound them together and imbibe them three times with urine. Afterwards with a portion of this make layer on layer for six hours, in the end with a strong fire. Then you will have a golden regulus, but it will not stand in the cineritium.

Oil which tinges Luna into Sol.

Take antimony 5. j., with lb.$\frac{1}{2}$ of sublimated Mercury. From this proceeds a red oil which has the property of gilding.

Oil tinging Brass into Gold of 24 degrees.

Take the very strongest lixivium and distil by means of a rose alembic. Then place it in a glass vessel and add saltpetre, sulphur, and crocus of Mars j. 3. or more, etc., so that the lixivium may float on the surface to the depth of one finger. Let it stand until it sinks to the bottom. This is done over a coal fire and it will become red like blood. Afterwards take it from the fire and let it cool. Place it again in an alembic and distil it until whiteness supervenes. What remains at the bottom is a tincture, and is a most wonderful production, possessing the virtue of natural gold.

Perfect Fixation of Luna.

Take cinnabar, gem-salt, and common salt. Pound them well with plates of Luna. Lute them layer on layer, place on a fire of cement for six hours, then purify by cineritium and repeat this process thrice. Afterwards place in cement for 18 hours and you have fixed Luna.

Take of this Luna three parts, of pure Sol one part, and dissolve them together. Its colour is not diminished in aqua fortis, but remains there.

Glorious Oil of Sol.

Take very strong lixivium and distil it in an alembic with sulphur, colcothar, and crocus of Mars, equal parts of each. Dissolve in the lixivium, and afterwards place it on the fire, making it boil until it grows red. Next distil it twelve times, or oftener, until whiteness comes forth. What remains in the bottom is a fixed oil and tinges everything to Sol.

St. Thomas Aquinas.

I have very often sublimated Mercury until it became fixed. I afterwards dissolved it in water into its primal matter. In this water I placed calx of Luna and fixed arsenic. This I now dissolved in horsedung and coagulated, whereupon it became a stone of tincture.

Water of Mercury.

Take of fixed Mercury $3\frac{1}{2}$. 5., with the same quantity of saltpetre. Pulverise them together. Then place them in a linen cloth in horsedung, with glass below. Above all this put a cloth as a covering, setting the horsedung on all sides above and below. Let it remain for two weeks, and then pound it until quite white. It will be sufficient for Luna.

Water of Sal Ammoniac.

Take sal ammoniac, the same quantity of egg shell, and a little acetum. Pound these together. Dissolve them afterwards on marble and you will have water of sal ammoniac.

Lac Virginis.

Take pulverised litharge, together with a sufficient quantity of acetum. Let them boil well. Afterwards distil with a white filter. Pour it on again, and distil until the water grows clear. Then take some sal ammoniac and anatron. Treat these in the same way, and afterwards mix them together. Then is produced lac virginis.

Purgation of Venus after the Greek Method.

Dissolve Venus and project on it some purified sulphur or arsenic, until it no longer emits any smoke.

For Recovering Luna in Antimony.

Take of Antimony j. ♐, of Tartar ij. ♐. Pound together with Sulphur IIj. Pulverise, and melt.

Aqua Fortis.

Take equal parts of vitriol, sulphur, and alum. Distil first with a gentle and at last a very strong fire. If you wish to have it stronger, substitute

calcined alum for the alum, and citrine colcothar for the vitriol. Then you will have very strong aquafortis. Aquafortis also made from vitriol alone has a wonderful odour as pleasant as musk. This aquafortis dissolves all metals except Sol. If it be desired to dissolve Sol, let there be added to the distilled aquafortis a little sal ammoniac, or common salt. Let these be dissolved together, and then it converts all metals into water.

The Operation Boni Thematis.

Take of sublimated fixed Mercury two parts, of calx Lunæ one part. Pound these with water of sal ammoniac, and desiccate seven times; then dissolve. After this distil the water by a balneum Mariæ and place this water in a glass vessel. Set it in the ashes of a sublimatory furnace until the water is entirely consumed, when the tincture will remain. Take one part to a hundred parts of purged Venus, or of Mars for Luna.

For Sol.

Take Calx Solis and Crocus of Mars in place of the water of sal ammoniac.

The Operation Bonæ Rapacis.

Take ☿ vivus, warm it, and in human blood 7. Thereupon it will be hardened. Boil in white of eggs, and you will have excellent Luna.

For the Same.

Take Mercurius vivus and put it in menstrual blood, with an equal quantity of juice from cornflowers and a little euphorbium. Let it stand for four days, and it will coagulate for working.

Calx Peregrinorum, or Marine Calx.

Take the bones of large fishes, or signum peregrinorum, or cockle shells. Reduce to a calx, and when it has acquired whiteness you will have the Calx Peregrinorum.

Papua Tincture.

Take of vinum ardens *quantum suff.*, and of pounded antimony as much as you will. Wash in the usual way. Take the more subtle portion, and project on dissolved Luna. It becomes in some part Sol, as I myself have seen.

The Work of the Noble Canon in Alchemy.

We have seen when we cemented pars cum parte, and the golden regulus was placed in the cement, that the result was, as it were, the best gold. But it did not remain in the cineritium as pars cum parte. Nevertheless it did remain in aquafortis. Thus we made a cement on fixed Luna, and placed that Luna in aquafortis, when it deposited for us a large residuum. When, however, this was fulminated, it grew white again as Luna. Once more we placed it in aquafortis, and not the least thing remained for us in that aquafortis. We believe that the matter in the cementations is either nothing at all, or is not cemented sufficiently, or its realgar is not fixed enough.

Calcination of all Gems.

Take any quantity you like of each gem. Pulverise it and mix with sulphur. Set fire to it; thus it burns, and you have the calx of that gem. If it be necessary, wash it, and the powder will be white.

How Bones may be Cut.

Take wood ashes and quicklime in equal parts, *quant. suff.* Boil the bones herein until they are softened.

Softening of Metals and Ivory.

Take the strongest lixivium of alkali and place in it the metal for fourteen days, when it will be softened. Take it out again, cool it in water, and it will once more become hard. Place ivory in the same way, having previously added the strongest acetum.

To Gild Metals.

Smear the metal with varnish, and then place upon it a plate of Sol.

To Whiten Venus.

Take aquafortis and dissolve Luna in it. Then with pounded tartar and common salt make a pulp and desiccate it. Thus it can be used with acetum. Some add sal ammoniac, smear the Venus, and heat it, continuing the process until the result is satisfactory.

Light Shining without Fire.

Take the eye of a goat, put it in water, and place a mirror above it.

Another.

Take some lixivium made out of the best quicklime. Place therein alum and camphor. Put it in a glass vessel with live Mercury and set a mirror above.

Water of Common Salt and Water of Saltpetre.

Take some of this with tile and distil it. This water is said to have a marvellous power of fixation. If Luna is melted in it and common salt, it can be distilled with honey.

White.

Take alcalum, with juice of white onions. Steep Mars therein, and it becomes Luna.

Method of Quartation.

Take one part of Sol, and let two or three parts of Luna be made into plates and put into aquafortis. This is the most consummate and excellent test of gold.

Colouring.

Take a little flos æris and sal ammoniac. Make them into a paste with acetum. It is one method of testing and colouring gold.

How a Cloth cannot be Burnt in the Fire.

Moisten the cloth with salt water. Let it dry of itself. Prepare it carefully with white of egg. Afterwards desiccate it, and the effect is produced.

When Glass is Destroyed by Fire.

Take a half portion of minium, quicklime, and flour. Mix with white of eggs. Apply a cloth moistened with it, and place it for a short time on the fire.

Lute.

Take ten parts of well-prepared lute, three parts of cows' hair, five parts of horse-dung, three parts of goat's blood, three parts each of quicklime and common salt, six parts of iron filings, and of white of egg and gypsum a sufficient quantity. Thus is made a lute.

Another for Luting Broken Glass.

Take equal parts of calcined flint, quicklime, common salt, and white of eggs. Mix these together, and then take a cloth, place it therein, and smear the glass or fracture. Let it harden; then smear it in water with linseed oil, and a better lute could scarcely be found.

A very strong Lute, which is proof against Fire.

This is made out of bullock's blood, quicklime, and salt. It is indestructible in fire.

An Excellent Method of Luting Glass.

Take sufficient quantities of Venetian glass, finely pounded, and oil of tartar. Make a pulp; lute the fracture and place it before the fire to melt.

To Make Minium.

Take of Saturn as much as you please, dissolve it to ashes and it becomes citron-coloured. Afterwards pound it, place it in a vessel over a moderate fire, and it will be coloured red.

The Process of Sulphur.

Take of this powder 5. j. Pour over it linseed oil, place it in an iron pan, and let it boil. It gives a red froth and grows thick. Pour it out and it becomes a red substance as thick as hepar. Put the particles into which it is divided into an iron pan with laterine oil and boil it thoroughly for two hours. Afterwards place it in a glass vessel on ashes for three days. Then the sulphur is converted into an oil. Take the glass vessel again and put it in cold water for three days and three nights. Then distil it, first of all over a slow fire, but increasing the heat until it is sufficient. Thoroughly calcine the dregs, which are called the caput mortuum. Imbibe with the first water. Then distil for seven hours. Do this again until the redness of the oil is changed to white, which will take place in three hours. Finally, take again the aforesaid oil; distil it by itself for seven hours, and the process is complete.

Then take a plate of Venus and dip it in the said oil. If it is transmuted into Luna, well and good. If not, distil again until this takes place with the said calcined fæces.

Or:

Imbibe the fæces frequently with the said oil. Let it flow over a copper plate and it becomes white. Afterwards take one part of the fæces, and five

parts of Mercury. Place these together in a crucible well luted and set it in the fire. Then cool, and you will find a not very hard substance. Take the crucible and repeat the process with the aforesaid fæces. Proceed as above, and you will find an elixir of which one part is projected on 1000 of purified Mercury, and there is produced perfect Luna. Of this take one part and fuse it with ten parts of calcined and white Venus. Then will be attained a perfection with which none can find fault. Of this elixir take j. 3. and of Mercury 4. j. Let them boil, and good Luna is produced.

If, however, you wish to transmute the above-mentioned Elixir into Sol: Then take the element of fire, place it in a large glass vessel, and desiccate in the sun. After this imbibe with pure water. Then take some of this powder on a silver plate, and it will melt like wax. If not, imbibe it again, until it suffices. Next take one part with two parts of live Mercury. Lute them together, place them for half-a-day over a fire, and do as I before directed. Then take and add of the fire spoken of above the same quantity as the Mercury, and proceed as above. Once more it becomes citron-coloured and as hard as Sol. Of this Elixir take one part to 1000 parts of the Luna which has been made from the said Mercury. Then it becomes gold better than that of Nature, and by separating the said Luna 5. ij. with j. 4.* Mix and then it has admirable power, so that people say this is the most consummate Elixir of all Alchemy.

Operation for the Preceding Work.

Take prepared purified sulphur and put it into a vessel so that the vessel may be four parts empty. Place over it a cloth folded double, underneath which is live Mercury. Lute it closely, put it on a fire for three days, when it will harden and become as Luna. If this does not take place, treat it with fresh Mercury, then add one part of that Luna with five of purified Venus, when the whole will become good and pure Luna.

For Sol Boni Thematis.

Take Mercury, iij. 5.
Crude Atramentum, j. 5.

Pour over these

Salt Water, ij. 5.
Jamen Alum, j. 5.

Mix these ingredients together, and place in the sun until the mercury dies and is converted into water. Put in a box thoroughly luted with lead, arsenic, and sulphur, and let it stand in a steady heat for one day. Open the box and you will find the Mercury coagulated. Pound this together with the above-mentioned water made of atramentum and alum. After this desiccate, place it once more in the box, and proceed as before for three hours.

Once again for the fourth time imbibe with the aforesaid water, and place in dung for putrefaction during five days. Then desiccate in ashes, and take of this tincture one part to a hundred parts of Venus. Take one part of the

* The translation is literal, though the sense is not intelligible.

aforesaid elixir and of calx peregrinorum. Pound these two together and imbibe with water of mercury; desiccate, imbibe frequently, and it will coagulate. Finally take one part of this to two hundred parts of Venus, and you will have the best Sol that can be found.

MODE OF FURTHER INCREASING THIS AUGMENTATION BONI THEMATIS.

Take white of eggs with the same quantity of quicklime. Pound with orpiment water, imbibe, and coagulate. Add water of sal ammoniac, and putrefy in dung for five days. Strain through a cloth and desiccate. This elixir tinges Venus into Sol.

ITEM.

Take some of this elixir, egg shell, and peahen's eggs calcined. Once more imbibe with orpiment water for ten hours. Desiccate, pound with water of prepared salt, and putrefy for one day. Desiccate again, and one part tinges a hundred parts of Venus to Sol.

A TINCTURE MOST EFFECTUAL FOR THE WHITE AND RED.

Take of calcined sulphur, white and fixed, two parts, of fixed sublimated mercury ten parts. Take also some water of sal ammoniac and imbibe frequently. Then put it in a glass vessel into horse-dung for fifteen days. Place a little on heated iron and it will melt like wax. Coagulate with a slow fire. Next take one part of this elixir to a hundred parts of Venus purified for Sol. Imbibe with water of sal ammoniac, adding continually a little crocus of Mars until the powder grows red, whereupon putrefy it in dung. Then melt in iron. Take one part to one hundred parts of purified Mars, and it becomes gold better than that of Nature.

OPERATION FOR SOL.

Take Live Mercury, viij. parts.
Sublimated and Fixed (? Mercury), iiij. parts.
Calcined Luna, ij. parts.
White Arsenic, j. part.

Pulverise, put in a silver box, lute well, place in a vessel, and pour over it Saturn for five days in one solution. Then take out the box and you will find a white powder. Pound this with water of sal ammoniac, desiccate, and putrefy for fifteen days until it melts like wax over red hot iron. Take 3.j. of it to one mark of purified Venus. Pour together and it will be true Luna.

FOR SOL.

Then redden the sulphur with crocus of Mars. Instead of the calx Lunæ take calx of Sol, and place it in the box. The substance must afterwards be more carefully strained and putrefied for a longer time.

WHITE.

Take Luna, 3 ʒ.
Jove, ij. ʒ.
Saturn, iij. ʒ.

Fuse these until they are thoroughly melted. Let them cool a little; then project ℥s., or somewhat more, of warm Mercury, and you will have the white.

Fixation of Mercury.

Take a silver phial of any capacity you like, and place in it Mercury until it is a third or half full. Close it up with bread, salt, and white of egg. Then place it among burning coals. Heat it, and then immediately plunge it into hot water. Continue to do this for an hour, when it will give a sound like the hissing of a goose. Then it is sufficient. Take it out, and it will be silver.

Augmentation of Luna.

Make an amalgam of Jove and Mercury, mix it with pounded salt, and wash it until no blackness appears. Take this amalgam, put it in a sublimatory, and sublimate the Mercury from the Jove. Then take of the Mercury thus sublimated four loth. Dissolve in aquafortis 21 (*sic*) crocus of Luna, 2 16 (*sic*) loth. of Venus, and dissolve each separately by itself. When all are dissolved mix the whole in one glass vessel, distil the water from the dregs, pour over it fresh aquafortis as before, re-distil the water from the dregs, and afterwards wash with fresh water. Next, dissolve sal ammoniac in acetum, pour this on the dregs, and let it stand throughout the night. Then distil it once more from the dregs by means of an alembic, and reduce the fæces with sal alkali and common salt. Purify the body you have in the cineritium, and you will find six loth. of most excellent Luna.

Water for Gilding.

Make aquafortis out of one part of vitriol, one part of saltpetre, and four parts of alum. Into the water so made put four loth. of sal ammoniac. Re-distil. In the same water dissolve an amalgam of Mercury and Sol, as the goldsmiths are accustomed to form amalgams. Let this stand for eight or fifteen days. Let the water boil down to one-third of its volume. When you wish to gild dip a pencil into that water, stir it briskly, and paint over whatever you please. Then let it dry, and afterwards burn it, as the goldsmiths do.

To Blot Out Writing.

Take Roman Vitriol, j. 5.
Usifur, ℥4.
Jamen Alum, ½lb.

Distil a strong water from these. At first it is white; and this you must collect by itself. When you wish to erase any writing, moisten a cloth with this water, touch the letters, and they are obliterated.

Cement.

Take Reddened Vitriol
Verdigris
Burnt Brass
Sal Ammoniac
} Each one part.
Alum, to make 1lb. weight of all.

Make layer on layer for eight hours in a closed vessel, and afterwards dip it in urine.

To Make Precious Stones.

Take very white silex, calcined and pulverised, one part, and three parts of minium. Place within a crucible in a brisk fire. Then let it cool of itself, and you will have a precious stone. It is coloured as an emerald by ashes of Venus.

Cement as Pars Cum Parte.

Take of Bloodstone
of Bolus Armenus } j.lb. j℥. each.
of Vitriol, a quarter, j. 2.

Pulverise. Then take half a part of the Sun or the Moon. Make plates. Then arrange in layers, as you know, and remove by smoke. Take from the fire, when you will have the best Hungarian Sun. It has been tested by me.

White.

Take of Venus, lb.j.
of Luna, lb.s.

Melt. Afterwards sprinkle lb.ij. of salt ammoniac and lb.ij. of pure salt. Project upon it j. quartal. Let it stand for one hour; repeat until eight hours have passed and it is made. Out of that Luna you can make anything you desire.

Beautiful Mercury brought over from Mercury.

Take Luna and Mercury equal parts. Dissolve in aquafortis: then abstract the water so that it may remain as a thick pottage. Dissolve this pottage again for eight days, and it will be converted into water. Abstract as before and again resolve four times, when you will ultimately have water which persists through all tests, and makes out of Mercury a Luna which remains everywhere. A drop or 1½ to 2 oz. of Mercury heated to evaporation.

Note the Sulphurous Work.

Boil sulphur well in vinegar or urine. Wash it well. Afterwards dissolve it over the fire and project as much as possible over the fire. Place it in a luted instrument and burn gently in a slow fire for 30 days, when you will have at the bottom a Mercury which is not very red. Dissolve in an open glass vessel into oil. This oil tinges in a marvellous manner.

Good and Proved Lazurium.

Take of Live Mercury, any quantity.
of Sulphur, a third part.
of Sal Ammóniac, one part.

Mix. Burn like cinnabar, and when you see a purple smoke, take out and mollify the lazurium with boiling water.

Water which makes Mars fluid and also boils in Air.

Take Camphor,
Salt of Glass,
Vitriol,
Boiling Wine,

Distil, as you know, and keep well.

Water which makes Luna into Sol.

Take red vinegar, sublimated, and live calx. Boil. Then put in that vinegar sal ammoniac and vitriol, dissolve and distil through the alembic. Extinguish plates of Luna therein and it will be converted within and without into the Sun.

For Luna.

Extinguish Mercury twelve times in human blood, and it will be hardened. Afterwards boil it in the yolk of eggs for one hour, when it will become good Luna.

Firm Tincture.

Take lb.j. of sal alkali, the same quantity of calx of eggs, two parts of clavellated cinder, also four parts of the dew of heaven. Decoct all these to the third part. Afterwards thrice distil through the alembic. Perform this diligently and you will have very strong water, with which Mercury and all bodies of metals are dissolved.

Take of the above water, lb.j.
of Foliated Luna, ʒj.

Place in cinders for three days, and the Luna will be converted into water.

Place Mercury, sublimated and well pulverized, in a phial among the ashes. Pour over some of the said water made from Luna, and it will be congealed. Continue this process, imbibing and desiccating until half part of the water is consumed lb.s. Afterwards place powder from Mercury into the fixatory. Digest slowly. On the third day augment the fire, making it exceedingly fierce, and you will find an everlasting tincture, one part of which falls over 100 parts of crude Mercury, when it will be good Luna standing every weighing and hammering, and lasting for ever.

Concerning the Oil of Sulphur.

Take of Oil, one-fourth.
of Sulphur, lb.ij.

Make a *hepar*. Boil it in lixivium so that the oil may be abstracted; afterwards that which remains at the bottom must be distilled through the retort, *secundario per lateres*. Make sufficient oil.

Pars Cum Parte.

Take Antimony prepared in Oil of Tartar, ʒj.
Prepared Salt of Nitre, Prepared Common Salt, Plumose Alum, } ʒs. each.

Let these ingredients be well mixed twice or thrice and imbibed in oil of tartar, whence will be formed a powder, which place layer by layer with Luna in a cementing fire for six hours; and, when this has been done, let it be sublimated. Then take one ounce of this and half an ounce of pure Sol. Let these be pounded together and formed into plates; and then make layer on layer with the following powder:

Take Sal Ammoniac, Saltpetre, Prepared Common Salt, } j.ʒ each.
Verdigris, Alum, Hæmatite, Vitriol, } 1½ ʒ each.

Pound these together and let them be imbibed with oleum laudis ten times or more, when they form a powder. Place them layer by layer in the fire for twelve hours. Afterwards take the regulus, sublimate, add three parts of Venus, and place in the following water of gradation :—

Take Vitriol, Saltpetre, Alum, } j.lb. each.
Plumose Alum, Calcined Alum, } iiij.ʒ each.
Cinnabar, Sulphur, } ½lb. each.
Verdigris, j.lb.
Antimony, vj.ʒ

Distil twice, that is, once from the caput mortuum and from the residuum which is found at the bottom. Fulminate ; and you will have Sol so good as to answer every test.

FIXATION OF MERCURY.

Take oil of tartar boiled in best lixivium, and distil through filter. Next boil till it attains to an oily consistency, and place in a good glass.

Take of the said Lixivium, one pocale.
of Salmiax, five times sublimated, one pound.
of Mercury, sublimated seven times, lb.j.
of very strong Water of the Fount, half a pocale.

Let them be mixed together in a Venetian vase. Allow them to stand for a day, so that the boiling may cease. Inject upon the oil ʒiij. of Luna in horse dung for a month, and the whole will be converted into oil. This oil tinges all things into Luna, can be coagulated into a stone, and is the water of Mercury.

PROJECTION.

Of Common Prepared Salt, Saltpetre, Sal Alkali, } ʒj.
Prepared Sal Ammoniac, Albumen, Vitriol, } ʒs.
Verdigris, ʒiij.
Crocus of Mars, ʒj.
Cinnabar, ʒs.
Prepared Antimony, ʒij.

Make a powder which is to be imbibed with oil of antimony and tartar (and urine) of Mercury ten times. Project over them ʒij. of Luna and ʒiij. Dissolve for six hours. Afterwards let it be fulminated and placed in aqua-fortis, or cemented as you know.

Preparation of Salts.

Make it with quicklime, and by means of a lixivium, as you know. Let it be twice or thrice imbibed with oil of tartar, but the other in oil of tartar.

Concerning Talc.

Let it be cemented a whole day with common salt. Afterwards let the talc be collected from the salt and most subtly pounded. Let it be put in a bag. Let there be poured over it a very strong lixivium. Let it be poured over again, until the calx is dissolved. Then it falls in the lixivium to the bottom. Dry previously very well. Afterwards let it be dissolved into oil. It coagulates Mercury into Luna, and similarly Jupiter.

Digestion of Luna.

Take Saltpetre, Vitriol, } lb.j. each.
Cinnabar, ʒiiij.

Make a strong water. Let this water be divided. In one part let there be Luna, in the other cinnabar. Let them be dissolved by the addition of sal ammoniac and then joined together. Let them be digested for fourteen days and the matter distilled. Then let it be reduced, and you will have a double quantity of Luna. Each loto of the salt will have a loto and a half.

Concerning Talc.

Let it be cemented with common salt a whole day in aquafortis. Afterwards the talc must be collected, most subtly pounded, and put in a bag. Let it be melted over a very strong lye, and let the process be repeated until the talc is dissolved. It then falls in the lye to the bottom. Dry previously well, then dissolve into an oil. It coagulates Mercury into Luna, and Jupiter likewise.

Separation of Sol and Luna.

Take Antimony, ʒviij.
Filings of Mars, ʒvj.
Crude Tartar, ʒiiij.
Common Salt prepared in fluxion, ʒiiij.

Pound all together and fuse in a tigillum. Then there will be a black substance, which also grind to a powder. Take equal parts of this and of Luna. Fuse the Luna until it appears bright and clear, that is, with the powder. Place in cupel with lead, and the antimony entirely evaporates. Afterwards purge by means of a cineritium.

Concerning Scoria of Luna.

Take scorias and powders in equal quantities. Melt until you have cocted the silver. Let this process be thoroughly carried out, then refine.

THE FIXATION OF CINNABAR IN ONE DAY.

Take of beechen ashes viij. parts, of quick lime j. part. Make a lixivium, in which dissolve of salt nitre, salt of vitriol, and verdigris, each j. part; of flower of alum and calcined tartar, ½ part each. Dissolve these; boil the cinnabar therein for a whole day, and it will be fixed.

ON ANTIMONY.

Imbibe the mineral in Saturn. Afterwards scatter sand upon it. Then the sand attracts the antimony to itself. When it becomes scoria, remove it with a spatula and sprinkle sand again, as before, until it will no longer evaporate. Then fulminate.

CONCERNING THE SOLUTION OF MAGNESIA.

Take one part thereof, and of sublimated Mercury ij. parts. Grind, mix together, and distil by an alembic. Then a thick and fat water, like linseed oil, is distilled. This tinges Mercury in itself. Then it tinges all bodies projected into it.

FIXATION OF ANTIMONY.

Take Salt of Alkali, ij. oz.
Salt of Nitre, j. oz.
Antimony, lb. j.

Melt together, then let them stand to cool, and the antimony will be fixed.

OIL OF ANTIMONY AND MERCURY, FIXING SPIRITS AND OF ITSELF DISSOLVING BODIES.

Take Mercury, iv. lbs.
Antimony, j. lb.

Dissolve as you know how. This oil dissolves metals.

OIL OF BORAX.

Put borax into a glass vessel and dissolve it. Let it be pulverised, hardened, and placed inside another glass vessel, in a balneum Mariæ. It is converted into an oil which fixes all spirits.

OIL OF GOLD.

Take Sulphur, j. part.
Quick Lime, viij. parts.

Let these be decocted in water and the decoction becomes red. Distil by an alembic, and there remains at the bottom the redness of sulphur. This is called the oil of gold.

WATER BY WHICH ALL SPIRITS ARE FIXED.

Take sal ammoniac, Jamenus, and vitriol. Distil by alembic. Then take any spirit, dissolve it in water, abstract it, imbibe it thrice, and it will be fixed.

ANOTHER.

Take Antimony, } j. part each.
Crocus of Sulphur, }
Sal Ammoniac, iiij. parts.

Imbibe with strong acetum ; at last dry it, and then mix with water of fixed sal ammoniac. Abstract, and distil.

Fixation of Sulphur.

Grind it with salt of tartar or crude tartar, together with common salt and salt of nitre in equal parts. Dissolve with the water of common salt and congeal. Put it in a vessel, lute, and set it in the fire. Let it get red-hot, afterwards dissolve in fresh water, distil with a filter ; congeal a second and third time, and the sulphur will become capable of being melted like wax.

Sublimation to Sol with Sulphur.

Take Live Sulphur, Roman Vitriol, Verdigris } equal parts.

Imbibe with the water of common salt. Sublimate thrice. Or, take equal parts of Sulphur, Honey, and Alkali. Let them boil for one day. This mixture makes Sol out of Luna.

Water of Antimony (Sulphur) for Sol.

Grind it, and take thereof iij. parts, with one part of sal ammoniac. Place it within a glass vessel, well luted, on ashes for one day. Then pound it in hot water, and it will become like blood. If it were boiled in a lixivium perhaps it would be better.

Fixation of Sulphur.

Take sulphur and honey. Imbibe and dry over a slow fire. Then let it boil well in a strong lixivium. Wash the substance until the water appears clear. Renew this process seven times, and you will find the sulphur white like crystal. Afterwards take prepared common salt and the same quantity of sal ammoniac and sulphur. Let these be well ground together twice. Then dissolve with white of egg, and congeal. Distil by means of a filter, and cool. Repeat this three times, and j. part changes xxx. parts of warmed mercury into permanent Luna.

Fixed Oil of Sulphur.

Take it, let it boil in alkali for one day, and be sublimated over a slow fire. Having done this, moisten it with acetum four times, abstract by means of a filter, and again moisten three times. It is afterwards abstracted by means of an alembic, and will then be fixed. Let it be dissolved into an oil on marble. Then take the body of the sulphur, dissolve it with oil, and congeal. One part tinges three parts to Luna, and that Luna has many of the properties of gold.

The Whitening and Fixation of Cinobrium.

Take it, together with calcined alum and prepared common salt. Pound together with vinum ardens, dry, and sublimate. Then it is whitened and fixed.

Fixation of Spirits.

Take quicklime, salt of alkali, and oil mixed therewith. Distil, and imbibe the spirits with test water, repeating the process until it melts on the plate.

Water of Mercury Fixing all Spirits.

Take Mercury, j. marc.
Sal Ammoniac, ij. marc.

Rub the two together into a glass vessel over a slow fire, and it will become a hard mass. Pound this and it will become a powder, which dissolve in water. Then take j. marc. of pure Luna or Sol carefully made into plates. Put this in the aforesaid water; and this water fixes all spirits.

To Fuse Bones.

Take any quantity of bones and burn them into lime. Having done this, carefully pound it. Take of this lb.iiij., of quicklime ½lb. Mix them together in the powder. Afterwards dissolve some bitumen in a moderate quantity of wine, until the whole of it is melted away. Then place the bones therein, and stir briskly into a thick pulp. Afterwards pour into a mould made of paper. First, however, let it be smeared with oil; set it to cool, and it will be hardened like ivory. You can, in course of fusion, give it any colour with minium, flos æris, or any other tints you like.

To Make a Mould for Casting all kinds of Images.

Pound tiles very fine, and boil them in strong lixivium so that they form an exceedingly thin paste. Dry this and strain it carefully. Afterwards make a water from the white of eggs. Then let it be pressed on a machine, and it will dry from the top.

To Colour Glass.

Take tartar, wood ashes, and quicklime. Make an alkali from them. Take thereof j. part, dissolve in iij. parts of colour in water (*sic*). Coagulate, and again dissolve with the colour. Do this three or four times until the stone shall be thoroughly coloured. Afterwards melt glass with the aforesaid stone. It will be coloured by the stone, and thus you can fuse crystal.

A Method of Colouring whereby Softened Crystal can be Tinted and Hardened like a Precious Stone.

Take alkali made from tartar, j. part: sublimated salmiax, ½ part: colour ij. parts. Pound well together, dissolve in water, and again pour the colour thereupon, repeating the process until the colour is sufficiently deep. Then it will be coagulated into a stone. Pound this very fine, and mix it with a crystal that has been previously softened with oil of tartar. The red colour is made with cinnabar, and becomes equally red therewith; the citron-colour is made from saffron, and the green with sap-green.

HOW EVERY STONE CAN BE TRANSMUTED INTO A CLEAR ONE, THOUGH IT BE ITSELF OPAQUE, AND WHEREBY YOU CAN TINGE A BODY, BOTH CRYSTAL AND ALL SIMILAR BODIES. EXAMPLE.

Take of ematite stone, very finely pounded, ij. parts. Let it boil fiercely in a lixivium (previously prepared from tartar, wood ashes, and quicklime) for half a day, so that it may be alkalised. Then sprinkle over it iij. parts each of sublimated sal ammoniac and also crude sal ammoniac. Dry over a very slow fire. Afterwards dissolve in water in a damp cellar, and what remains on the stone imbibe again with that water, repeating the operation until the whole is turned into oil. Then put it into a glass vessel and sublimate from the oil itself the sal ammoniac which is not fixed. When you see it has ascended and is no longer in the oil, then pound the stone, and boil it still further in the lixivium for six or eight hours; and then again, as before, dissolve with the sal ammoniac, both sublimated and crude, then by the sublimation of the lixivium and the solution of the sal ammoniac it is changed into a thick oil. Then those spirits which are not fixed are separated from it, as the sal ammoniac by sublimation, in the way before specified. The lixivium will not be separated; but add water, which has been distilled by a filter; then the oil will remain at the bottom, and the lixivium will be raised up with the water. Thus it will be separated, and you will have the oil of the stone alone. It is better, however, not to separate the alkali, but to let it remain in the oil.

DESCRIPTION OF THE ADEPT'S FIRE.

Take Vitriol, Alum, Saltpetre, } j. lb. each.
Calcined Alum, Calcined Vitriol, } ½ lb. each.

Distil in aquafortis for 30 hours. Afterwards take lb.ij. of the following strong water:—

Calcined Alum, Calcined Vitriol, } j. lb. each.
Saltpetre, 1½ lb.

Distil as above and renew thrice. Having done this, dissolve in the following strong water:

Sal Ammoniac, ij. quarts.
Salmiax, j. quart.
Sublimated Mercury, j.
Calcined Tartar and its Alkali (*no quantity given*).
Sublimated Arsenic, j. quart.

After each has been separately dissolved, let it be distilled by a bath and poured over twice. Afterwards let it be hardened a little and dissolve in a moist bath into a water In this water dissolve iij. parts of Luna, or as much as will dissolve. Coagulate into a hard stone and let this boil in a very strong lixivium into most potent water until it is alkalised. Dissolve and coagulate as long as you please.

FOR LUNA.

Take Sal Ammoniac,
Vitriol,
Rock Alum,
Salt of Alkali or Tartar,
} equal parts of each.

Sublimate in a glass vessel. One part tinges six parts of purified brass. Then add Luna.

THE PURIFICATION OF BRASS IS EFFECTED THUS:

With Acetum, Salt, and Tartar.

OIL OF SULPHUR.

Take three pounds of Hepar Sulphur. Boil it in a lixivium of soap; afterwards add

Rubified Vitriol, lb.ij.
Calcined Alum, lb.j.
Glass, lb.j½.
Crocus of Mars, j. quart.
Verdigris, j. quart.

Mix well into one mass. Distil by an alembic, having previously putrefied for three days; and with a very strong fire, so that the spirit may be energetically expelled. Set aside the white part. Pour that which is red upon the caput mortuum again. Re-distil; and keep doing this until no whiteness comes forth. Then thoroughly reverberate the caput mortuum. Distil it; and repeat this process until it no longer burns in the fire. Putrefy from the white oil. These tinge in a wonderful manner.

MODE IN WHICH SOL IS PRODUCED WITH PARS CUM PARTE.

Take Antimony, ij. parts.
Common Salt, iij. parts.
Vitriol, Alum, } j. part.

Grind to a powder. Take ij. parts of this, and j. part of filings of Luna. Mix together, and place in a tigillum on a slow fire for two hours. Then place it in a very strong fire for another two hours, and melt it in glass. Afterwards imbibe in Saturn and purify by means of a cineritium. Next convert it into plates, and put them layer on layer with this powder. Then take

Common Salt, fused,
Salt of Nitre,
Alum,
Vitriol,
} ½ lb. of each.

Ematite,
Flos Aeris,
Calaminaris,
Tutia,
Cinnabrium,
Minium,
Burnt Brass,
} ½ oz. of each.

Dry by the fire. Make into a powder. Imbibe three or four times with urine. Place in a luted tigillum and set in a graduated fire for six hours. On the last day (*sic*) put in the regulus, having purified it by a cineritium. Wash it again and cement it, until it is proof against aquafortis. Then take of that Luna (*sic*) iij. parts, of pure Sol j. part, of copper ij. parts. Dissolve together and cement for ten hours. Let the regulus be dissolved into iiij. parts, and placed in the aquafortis to be hereafter described. Then you will have a residuum of Sol perfect according to every test.

The Aqua Fortis.

Take Vitriol, Saltpetre, Alum, } j.lb. each.
Antimony, 4 ss.
Cinabrium, 5 4 vij.
Verdigris, 5 ss.

Distil all these into a water.

For Beauty of Face.

Take Oil of Tartar and Dragaganth. Make an ointment and besmear the face therewith once. Then remove it.

Note Concerning Cements.

Take laminated Luna and let it be cemented with species of cements twice or thrice. Afterwards add one part of purged Venus. Dissolve in water of gradation, and you will have gold if it remains its time, namely, until it acquires a red colour. Note that *pars cum parte* is made as above.

Note.

Place verdigris in ashes so that it may grow white. Then extinguish in vinegar, when it will become red. Afterwards pound, wash thoroughly, and desiccate again. Tutty is made as above, and becomes red. Also let colcothar be imbibed with vinegar as above. Also take ʒs. of cinnabar and ʒj. of vitriol as above. Next let the vitriol be imbibed with vinegar after the manner of a pottage. Divide it into two parts. Let one part be placed at the bottom of the tigillum. Arrange cinnabar above in layers, well luted. Place by the fire, so that it may not glow, for two hours. Afterwards pound well. Also take ʒij. of crocus of Mars. Wash in the manner of ceruse. Take the more subtle portion. Desiccate and imbibe with vinegar. Thus dry twice that which floats above.

Also take of Crocus of Mars, of Tutia, of Verdigris, } ʒj. each.
of Vitriol, prepared as above, ʒj.

Mix together, pounding well.

FIXED VENUS.

Take of Filings of Iron.
of Antimony.
of Venus.

Place in a tigillum well luted. Let it stand twelve hours in flux. Afterwards infrigidate and fulminate the king with the same quantity of Saturn. You will then find 12 lotones of fixed Venus of j.lb. It makes no more scoria, nor is further destroyed by R. You can make it red or white.

TO THE WHITE WITH METALLIC ARSENIC.

Let it be fixed by means of imbibition of the oil of eggs and of tartar until the tincture be made.

CROCUS OF MARS.

Take any quantity of Mars, and the same of saltpetre. Make it burn and become red. Let it also become sulphur, etc. Also take ʒj.s. of sal ammoniac. Pound. Also take ʒij. of glass, prepared and pounded as above. Mix and imbibe with vinegar twice. Also take iiij.oz. of filings of Mars and two ounces of red vitriol. Make crocus with vinegar, as you have seen. Let the oil of Mars be distilled. Imbibe sal ammoniac as before until it reddens. Take of antimony h. j., well pounded, and of tartar h. j. Mix well. Next dry. Shut up in a jar, so that it may not grow white on the coals. Leave for two hours. Afterwards pound it and pour *vinum ardens* over it, so that it may be inebriated. Place it in a phial for a night and a day. Next distil. Pour over it again, and distil by a slow fire.

TO SOFTEN GLASS.

Take Lybisticum. Press out the sap. Cause the glass to boil in this.

THIS IS THE METHOD OF MAKING LUNA.

Take j.lb. of Mercury. Heat it, and pour over it the following water: Take common salt j.lb., saltpetre j. quart. Grind them, and then bake j. quart of lime. Mix well in an iron dish over a slow fire until it froths, for one hour. Remove from the fire and cool. Mix all together, and dip it into oil twice. Fulminate this Mercury in a cineritium, and you will rejoice for ever.

CORRECTION OF OIL OF TARTAR, FOR BEAUTY AND FOR LUNA.

Make layer on layer with tartar and lime. Burn well. Then filter for two hours. Lastly dissolve, and you will have corrected oil of tartar.

NOTE.

Take equal parts of sulphur and Mercury. Form a paste like amalgam. Then mix with salt. Let them remain in gentle fluxion for half an hour or thereabouts. Then burn; afterwards wash. The Mercury which you find there grind with a salve of Aza, wax, *vinum ardens*, etc., until it is burnt. Finally reduce in a cineritium with borax, and you will have Luna without any doubt.

Water of Fixation.

Rectify the white of eggs with their own shell four times. Take of this lb.j., of well purified Sol j. ℥, and sal ammoniac j. ℥. Boil them well with urine. Dissolve these together and distil by means of an alembic. Imbibe therewith sulphur and arsenic, sublimate until fixed, and you will have an elixir.

Note.

Take Cinnabar, lb.j.
Sulphur, Arsenic, Calcined Tartar, } lb.iiij.
Alkali of Soot, lb.½.
Salt, nine times prepared, lb.½.
Salt Nitre, the same weight as all the rest together.

Mix, pound, and moisten several times with the water of eggs or albumen of tartar. Let them remain in a state of fusion for three hours. Afterwards kindle and warm, when it readily dissolves the saltnitre; one part of sublimated Mercury and two parts of sulphur must be stirred continually with a stick. It then speedily loses its smell. The salts are prepaped by frequently evaporating the acetum or urine. Afterwards melt them so as to mix for four hours over a very strong fire. Then wash and purge over ashes; and you will have the Treasure of the World.

Reduction.

Take Goldsmith's Borax, part j.
Assafœtida, Sarcocolla, Oxicroceus, Wax, Galbanum, } parts ij.

Dissolve the gums in vinum ardens, mix with the borax, as above, and it is burnt at the same time. If it does not melt, add more borax until it melts.

Oil which Fixes and Tinges.

Take Linseed Oil, Honey, } oz.viij.
Yolk of Eggs, oz.vj.
Eggshell and Quicklime, each j. quart.
Colcothar, Saltpetre, and Calcined Alum, } each ij. quarts.
Antimony and Tartar, each lb.½.
Juniper Wood, 4.

Pound, mix, and distil. Having done this drive out the spirits of nitre, alum, colcothar, and antimony until the water or oil becomes red and thick. Then warm the tartar and antimony, and pour in the oil that the spirit may thus be more reddened. Add iiij. parts of aquafortis, so that the oil may thereby be

more fixed. It would be well, too, if this oil were previously rectified from the calx of the eggs and its own fixed spirits by renovating and distilling six times. Lastly, take of this oil j.lb. and ten parts of fixed salt. Let it be fixed by ten cementations, solutions, and fusions, and as often by nitre. At the same time take one quart. each of alkali fuliginis, Jamen alum, and sulphur of tartar. If the sulphur has been imbibed with nitre it renders it red and more fixed, and gives it ingress. Take of this sulphur j. part ; of coagulated Mercury ij. parts. Cement for four hours, and it becomes gold more perfect than that of Nature. In like manner all spirits are fixed by this method. They perform wonders, do the like, and ingress and tincture are added to all species. It turns to Sol the calx of Luna when placed upon it, and equally fixed copper in the same manner. It fixes calcined or sublimated Mercury, both into a body and into a tincture, that is, an elixir. This oil can be coagulated over a very slow fire, and you will then have a stone, the virtue of which is to turn into pure Sol, Luna, fixed Venus, and all metals prepared for it. It fixes also cinnabar into Sol.

Caput Mortuum for the subject of this Sublimation.

Take Arsenic,
Sulphur, } j.lb. each.
Crude Tartar,
Salt, fused and prepared, lb.ij.
Saltpetre to the weight of all.

Dissolve over a slow fire with lb.j. of crude antimony, until two hours are completed. Then kindle, and let them melt for an hour. Let this caput mortuum be imbibed with the said oil. No better caput has been discovered.

Ready Method for Coagulating Mercury.

Take it when made very warm, steep frequently in warm oil, and it will be hardened.

Arsenicus Matellinus.

Take Quicklime,
Common Salt, } j. p.
Calcined Tartar, ij. p.

Mix with the clear part of eggs. Make into pills, and distil by descent.

White Cinabrium.

Take equal parts of Alum,
Calcined Tartar,
Common Salt,
Cinabrium.

Sublimate all these. It will become four times as white. It also becomes white in a strong capitellum if you boil it for a night. Jupiter steeped in oil of tartar 7, or more, becomes good, etc.

NOTE. FOR MAKING ICE EASILY FUSIBLE IN FIRE, AND SUCH ALSO AS IS NOT DISSOLVED BY WATER.

Take aquafortis made from saltpetre and alum, together with oil of tartar, j.lb. each. Pour all together ; then put into them a little vinum ardens, and the whole will coagulate into an ice by the power of fire.

OIL WHICH WE USE FOR PROJECTION ON MELTED LUNA.

Take Purest Gold, j. loth.
Sal Ammoniac, iij. loth.
Oil of Antimony, x. loth.
Aquafortis, *quant. suff.*

Dissolve, as you know how. Having done this, let it putrefy for seven days, and distil by a bath, continually renewing the whole until the aforesaid materials are converted into a thick oil. Of this take x. loth., with purest gold ij. loth. Dissolve at the same time iiij. loth. each of sublimated Mercury and fixed sublimated sal ammoniac. Proceed as above with fresh aqua fortis, and all these ingredients are converted into a thick oil. In this oil dissolve as much gold as possible. The oil will then transmute into gold all metals on which it is projected, and if it be coagulated into a stone it tinges it beyond measure. By this method you can proceed to silver. Mercury will be fixed with white of eggs, and in the same manner sal ammoniac.

A WONDERFUL CEMENT BY ONE STONE OVER LUNA.

Take Crocus of Mars, j loth.
Hæmatite, ij. loth.
Verdigris, v. loth.

Pulverise well and boil in a very strong lixivium for ten hours, so that it may be alkalised. Having done so, take of this alkali ½lb., of sal ammoniac iiij. loth., and of sublimated salmiax j. loth. Mix together and dissolve on marble into a watery oil. Pour the oil thus made on the dregs, and keep doing this until the whole matter is turned into water. This being done, coagulate it into a stone, which sublimate in order that the sal ammoniac may evaporate, and the matter alone may remain. Then once more boil the stone in very strong red lixivium. Again add the aforesaid weight, dissolve into oil, and again coagulate the oil, sublimate the sal ammoniac from it, and do this over and over again until the matter of the species flows from them on the marble. Take this water, coagulate it afresh, dissolve it again and put it in j. quartal of powder or j. loth. of water of ducat-gold. When it is dissolved coagulate it. This stone is effectual in cements, and effectual also in projections. It also tinges crystal.

CEMENT BY WHICH HALF OF LUNA BECOMES SOL.

Take Hematite, v. loth.
Flos Aeris, ij. loth.
Crocus of Mars, iiij. loth.
Sal Ammoniac, iij. loth.
Nitre, ij. loth.

Boil and desiccate. Afterwards imbibe nine times with oil of antimony; then with equal parts of this powder and of Luna make layer upon layer. Having done this lay aside the Luna and fulminate it. Then it is separated by means of successive applications of water and purged by a cineritium.

Take Antimony, lb.vj.
Verdigris, lb.j.
Calcined Vitriol, lb.ij.
Calcined Alum, lb.j.
Saltpetre, lb.iij.
Sublimated Mercury, lb.½.

Distil, and there issues forth a strong red water which tinges everything into Sol.

Cement whereby four parts of Luna become perfect Gold.

Take Luna, iiij. loth.
Venus, j. loth.

Make thin plates and form layer on layer with the following powder. Take: ij. loth. each of red vitriol, calcined alum, and saltpetre; j. loth. each of verdigris, hæmatite, and tutia, with iij. loth. of sal ammoniac. Dry by evaporation over a slow fire, and imbibe several times with white of eggs. Make into a powder, and cement the Luna for seven hours in a graduated fire. Afterwards put it into a cineritium with the following strong water.

Take Saltpetre, } lb.j.
Alum, }
Calcined Alum, j. quart.
Cinnabar, } lb.½.
Sulphur, }
Verdigris and Calaminaris, each j. quart.
White of eggs boiled in calx of eggs, lb.iij.

Mix, and make into a strong water. Distil again lb.ij. of the aforesaid fæces with lb.½ of calcined alum and one quartal of plumose alum. After a gradation of twenty-four hours reduce with borax, and there will result the most perfect gold.

Zalusia.

Dissolve calcined alum, etc., as also calx of alum. Mix with white sugar and camphor, imbibe with quintessence, and burn. Then the camphor is burnt out and consumed, while the alum is transmuted into oil. Place it in aqua vitæ.

Oil of Vitriol for all Weakness.

Make vitriol up to redness. Dip that calx in common acetum, as far as it can be dissolved. Pour out that which is dissolved and keep it. That which is not dissolved dissolve again with fresh acetum, as above, until the whole is dissolved. Then let the acetum evaporate to dryness. Calcine the moisture from it anew. Then place it for distillation and you will have an

oil. Over this pour the rectified quintessence and place in a bath for putrefying. The superfluous part remains at the bottom. Pour this off clear, and you will have the quintessence by means of the alembic. The oil, of a deep red colour, remains at the bottom.

Salt of Tartar.

Calcine tartar to whiteness. Dissolve in cooked urine. Filter, coagulate, and you will have salt of tartar. Take it soon; let it dissolve in oil. Dissolve the other part in white vinegar and coagulate into a salt.

Antimony.

Take of Antimony ij. p.
of Fused Salt, j. p.

Let them be melted until the water ceases to redden and the antimony becomes white. Put the froth in a glass. Coagulate it. Next place it in a long cap-pot, extract it with an iron scraper, and repeat the process until it becomes white to a powder and then red again. Then take one marc of Jupiter. Sprinkle thereon a quint of this powder when the metal is in flux. Then refine on the test.

Crocus of Mars.

Dissolve in aquafortis. Then distil the aquafortis from thence. Take as much sal ammoniac as crocus, and sublimate four times from the crocus. Afterwards put the whole substance in acetum to dissolve in a slow heat for two days. Distil the solution by a filter, and then cause the acetum to evaporate. Afterwards strengthen the fire. The sal ammoniac retires, and the crocus remains in a fluid state at the bottom.

Water of Mercury.

Take crude Mercury j.lb. Put it in a cucurbit to distil. Give it a slow fire, and a single drop will come forth. Pour this back; distil again, and two drops will come forth. Pour these back again, and continue this process until the whole is converted into water. This water penetrates and dissolves bodies.

Note.

Take crude tartar and pound it well. Then distil through an alembic. Pour its water again upon the fæces, and distil again until a water or oil collects; then put the same into another receptacle. Afterward rectify it. Take live calx in the same quantity as red oil. Pound it thoroughly. Then extract the water through the alembic until no more fæces remain at the bottom. Next put half as much sulphur into the oil. Putrefy for ten days. Afterwards again distil. Then make an amalgam out of one part of Luna and five parts of Mercury. Heat and extinguish in oil six times. Then Mercury is fixed, and there are many arcana in it.

Note.

The calx of the body is cast into a fluxion of saltpetre over the fire. Dissolve in a cold chamber. It falls on the bodies.

Water of Luna.

Make an aquafortis out of one pound of saltpetre and two of vitriol. Dissolve therein half an ounce of Luna; then dissolve a common salt in warm water. Pour into it aquafortis with Luna, when it will be precipitated. Then extract the water from it, and dry it. Add to the dissolved half ounce one ounce of sugar-candy. Pour upon it again a fresh supply of aquafortis. Extract the moisture therefrom in a bath. Afterwards put it in a sand cupel and extract the water of the moon through the alembic. If it does not ascend more than once, pour the ascended water thereupon until all shall have passed through.

The Fixation of Arsenic.

Take two parts of alum and one part of saltpetre. Make a water by means of an alembic, and put into the water a part of sublimated arsenic. Distil to a fixed water.

Fixation of Mercury.

Take of Fixed Arsenic, } two parts each.
of Sal Ammoniac, }
of Fixed Sulphur, one part.

Melt them together. Then take one marc of Mercury. Warm it. Next put it into the melted matter therein. Wait an hour. Then refine it in Saturn on the test. You lose nothing, and you will have more than two parts of the Sun. You may then also take the Mercury which is coagulated with the smoke of Saturn.

True Albatio.

Take of Sublimated Zaibach, x. parts.
White Sublimated Kybrick, iij. parts.
Sal Ammoniac, iij. parts.

Imbibe frequently with water of sal ammoniac, and dry until they are white and roasted. Again imbibe and roast. At length take water of the eagle, that is, sal ammoniac, double the amount of the powders. Put it to dissolve under moderately warm dung for three weeks. Then take it out of the dung and congelate it into white powders. Of these project one part on 100 parts of purged Venus, and the whole will become silver. These are the truest experiments of many philosophers who have worked by Zaibach, Kybrick, and the eagle. For these are three great spirits. Thus prepared, they tinge.

To Fix Sulphur.

Take as much aquafortis as you wish. Inject ʒj. of live sulphur and the same quantity of pulverised alum. Dissolve in water, when the sulphur will become red as blood and fixed. This water dissolves all bodies.

Note.

Mercury is called honey, calcined Luna, the assistance. Water of Mercury is called water. Thus Plato.

Fixing Salt.

Take Quick Lime, ij. parts.
Soft Smegma, j. part
Wood Ashes, ½ part.

Also some ashes from the dregs of wine. Reduce all these to powder so that they may become a strong lixivium. Strain through a filter; coagulate, and you will have fixing salt, concerning which see below also.

Fixing Oil.

Take of olive oil three parts, of quicklime two parts, and of sal ammoniac one part. Mix all together and distil the oil from them. Do this three times, always renewing the dregs.

Soft Soap.

Take twelve scutellæ of water, in which place one scutella of wood ashes. Boil until dissolved. Then add half a scutella and boil until the water is reduced one-third. Remove from the fire and distil by a filter. Then to two parts of the water thus strained off add a third part of oil 9. Do this by evaporating over a fire.

Coagulation of Mercury.

Make an amalgam from one part of Luna and five parts of purified Mercury. Place it in a glass vessel with a narrow neck which is well smeared below with the lute of wisdom. Place under the amalgam in the glass one layer of salt previously prepared, and also above. Afterwards pour over it the oil previously prepared to the height of three fingers, and let it boil over a slow fire for seven days.

Note.

In art we find two co-operators by whose means our working is more easily fulfilled. The one is the destroyer, that is to say, sal ammoniac. But sulphur and arsenic reduced to an oil promote the work. The property of sulphur is to coagulate Mercury. But the property of arsenic is only to inspire and vivify the stone, if it be prepared in due manner. Hence, whoever omits to prepare the oil of Mercury should take the oil of arsenic in its place. But when a philosopher speaks of joining in matrimony the body and the spirit by sal ammoniac, he speaks of the oil extracted from Mercury.

Solution of Bodies.

Dissolve honey over a fire, and pour over it tiles heated and pounded so as to imbibe the moisture. Then distil by an alembic, and a saffron-coloured water will be produced, because otherwise the honey cannot be distilled. Into this water let the spirits of aquafortis enter, that is to say, equal parts of vitriol and saltpetre. Then dissolve Luna and Sol in that water, and get ready also an ounce of prepared common salt. Then this converted material can be eaten or drunk without injury, because it is aurum potabile.

NOTA BENE.

THAT YOU MAY KNOW THE RECIPE FOR SOLUTION.

Take a clean cloth, like ticken or fustian, as much as an ell in length; pour on it a pint of good wine, and with the wine mix about a half pint of good brandy. Tear the fustian or the cloth at first into fragments. Let it remain thus three days. Afterwards take it out and dry it on a board. When it has dried take one tatter after another on a small stick. Burn it as if to make tinder. Put the burnt tatters one by one into a brazen basin. Place in a cellar, when the whole will speedily become an oil. Then amalgamate Luna or Sol with three parts of Mercury. Let the Mercury evaporate again. Place a calx upon the slab. Pound it with brandy. Then take twice the quantity of the above oil, and twice the quantity of the body of Mercury. Temper it thoroughly on a table made of Saturn. Set it subsequently in a moist place, when you will soon find oil of the body, which use as you know how.

LUNA FIXED BY ME.

Take saltpetre, antimony, and arsenic, and imbibe them well with oil of tartar, so that they may be thoroughly mixed. Dry them somewhat. Afterwards melt them in a tigillum, first over a slow fire and then over a stronger one. Pound the whole together into powders. Take of these one-fifth to one loth., or more if you like, and you have, etc. (*sic*).

Sol is the first which is not altered by fire, nay, it is improved by fire, and cannot (otherwise) become a great or perfect elixir, which is of eternal duration, the rectifier and lightener of all bodies, and is joined with Mars and Saturn. But it cannot be joined with Mars except Mars be filed, but with Saturn it is joined as it is.*

A NOBLE WORK.

Take Saturn and melt it. Before it hardens project an equal amount of Mercury. Wash this amalgam thoroughly with water and salt, afterwards with pure water. Grind on a stone, and afterwards add as much sal ammoniacum as there is mercury. Place it in a damp, warm place. When it is entirely dissolved take sublimated arsenic. Imbibe it by pounding it thoroughly on the stone with the aforesaid water. Set it to dissolve, but remember that there should be something there to lighten it. Let it stand until it is quite cold. This preparation serves as a means of lightening when it is projected on one hundred parts of Venus and on two hundred of Saturn. But note that you always ought to place in it salt of alkali, so that the spirit may penetrate better and enter through the whole body.

FIXATION AND RUBIFICATION OF MERCURY.

Take bloodstone, mix it with sal ammoniac and sublimate it. Then the sal ammoniac ascends red, but the stone will remain at the bottom black. Then, having once sublimated the Mercury, grind it with that sal ammoniac, and sublimate it. The mercury will remain at the bottom fused and red.

* The text at this point, and in many places throughout the latter part of the collection, seems exceedingly corrupt.

NOTE.

Calcine the cinnabar well with vitriol and salt, when it all goes into the metal.

NOTE.

With regard to what will not readily enter into lead, nothing having been taken out, boil the matters in strong alkali. Add thereto as much as you like of vitriol, and it enters in.

WATER OF MERCURY.

Take of mercury sublimated and of antimony ʒiiij. each. Break each in pieces separately. Put together in a well-luted retort. Set in a sand; apply a gentle fire. Refine over. Should it attach itself in the tube, ease it with a coal. Increase the fire until it no longer comes over. When it is cold put the matter upon a stone. Pound it small. Should Mercury still remain, remove it. Then put again into a retort. Refine more effectually than previously, even until all the mercury has become water. Thus you may also make oil of antimony. Take the matter in a glass. Pound small. Pound the moisture. Do this continually and distil until a red oil comes over.

FIXATION.

Take of Mercury Sublimate, part j.
Sulphur, part ij.

Break up together. Put in a cucurbit. Set it in sand. Let the smell go out, at first weak, afterwards stronger. Should the sulphur not lose its smell, stir with a piece of wood; it will then lose its smell soon.

PROOF.

Set it upon a plate. Should it not smell it is fixed; if it does, take equal quantities of sulphur and mercury. Pound together, as at first, until it is fixed.

REDUCE AS FOLLOWS.

Take one part both of litharge and of Mercury, and a small quantity of sulphur. Put the Mercury into the crucible and thoroughly lute. Apply at first a small fire, then a stronger, until it melts. Afterwards let it cool. Wash the Luna. Refine in Saturn. Then separate in aquafortis.

WHITE.

Take the white of forty eggs, break up well and boil. Then distil the water through a cloth. Afterwards take lb.j. of Mercury sublimate, and the same quantity of arsenic. Impaste frequently with the aforesaid water, and dry sufficently. Afterwards (another copy has) let lb.j. of sal ammoniac be added twice. Pour the water over the pounded powder to the height of a finger or two. Set in horse dung in a closed glass for fifteen days. Take out on the sixteenth day, and you will find an aqueous mass. Coagulate this in cinders. Of this j. part tinges one hundred of the bodies, and especially of purged Venus, to which if there be added three or four parts of Luna, it will become perfect Luna. If you add a ferment the Luna will be still more perfect.

Oil of Mercury and of the Sun for Gilding.

Take of Sal Ammoniac, ½ oz.
Mercury Sublimate, j. quint,

which are to be well pounded together. Put into a hard boiled egg. Then remove the yolk, and make under or through the floor a small hole with a barrel of a pen. Put the egg on a small glass to eliminate the humour. Do the same with calx of the Sun. Take one quarter of the Sun. Paint it with Mercury. Put therein salt pounded small. Let the Mercury lose its smell. Boil the salt with hot water from the calx. Then take twice as much sal ammoniac as calx. Put this also in an egg with a small hole. Set it as before to dissolve into an oil, but should the sal ammoniac not melt readily, moisten it with brandy.

Oil of Vitriol.

Pour aquafortis on carefully-calcined vitriol. Let it stand in putrefaction for fourteen days. Afterwards let the phlegma of the aquafortis be removed, and the oil remains at the bottom.

To Extract the Quintessence of Luna, Saturn, or Jove.

Put tartar and sal ammoniac into acetum in a well-closed glass vessel. Put in this the ashes of Saturn, Jove, or Luna. Seal thoroughly and set in warm dung for eight days. Afterwards distil, and the acetum comes first, next the quintessence of the calx, after the manner of quicksilver.

Aquafortis on Venus, to make Luna.

Take of Salt,
of Hungarian White Vitriol,
of Alum,
of Arsenic,
} j. lb. each.

Pound small according to the proper manner. Make aquafortis. Dissolve therein as much as you like of Venus, and you will have silver to the quantity of one-half.

Elixir.

Take equal parts of Sol, Luna, Mars, and Venus. Melt them and make plates of them, which suspend over acetum. Scrape off the green which will be formed there. Do this until the plates are entirely consumed and turned into green. A portion of this green on 10 parts of Luna transmutes it into the appearance of Sol. If you wash this green with warm water, and afterwards mix with it some water of sal ammoniac, letting it stand for seven days, and dissolve, its effect is doubled. If, too, in place of sal ammonia you added aqua fœtida, that is, Mercury, and then operated, as with the water of sal ammoniac, you would certify your work ; nor can you make any mistake on account of the metallic substances being combined in a philosophic way. Note this well.

Another.

Rubify vitriol, pound it, and dissolve it in acetum. Then sublimate sal ammoniac over a slow fire, and add what is sublimated to the aforesaid red

water in equal weight. Give it a slow fire cautiously for three days, and it will be coagulated and fixed. If it be not fixed, then repeat, and it will become a deeper red. Fix it until it is completely fixed, which you will prove on a plate of copper. Put three parts of this powder to eight parts of Sol, and a sort of fermentation will be produced, one part of which tinges thirty parts of Luna into Sol; and that Sol will change sixty parts of Luna into Sol in my opinion. Add antimony as above; it will then be much better.

One Part of Tincture on Ten Parts of Luna in Sol.

Take of Verdigris, }
of Mercury, } j.lb. each.
of Vitriol, }

Mix thoroughly together. Distil a water out of them, from which Mercury proceeds into the alembic. Take the alembic from it. Subject the other in a glass to a good fire, so that it may become red. Take it out. Make it into a powder. Pour its own water back into it again, and put on the fire. Let the water lose the smell thereof, so that it may become red as scarlet. Pulverise. Melt a ducat in a crucible. Incorporate the powder thoroughly with it, or melt it upon it. Take the gold and throw it upon ten ducats of silver, and melt. Thus it arrives at the twenty-fourth grade. I believe that if a ducat had been first resolved in water of Mercury, and again coagulated with the former powders and resolved, and that three times, it ought to tinge the powders.

Water of Mercury.

Mercury thrice sublimated from tartar is thereby turned into water in a cucurbit in hot ashes.

Particular.

Take red vitriol, put it while still warm in strong acetum, and dissolve. Add crocus of Mars and leave it thus for eight days. Then take verdigris, grind it very fine, and imbibe it with the former liquid. Next take sulphur, and kill Mercury just as if you wished to make cinabrium, or else take cinabrium itself and sal ammoniac equal in quantity to the above-mentioned ingredients. Grind all together, and place on porphyry to be dissolved. Coagulate the solution. Take one part of that powder to ten parts of Luna, and it will become Sol. Add the Spirit of Venus, and it will perhaps be so much the better.

Aquafortis Purging all Metals and Fixing Sublimated Spirits.

Take vitriol, alum, sal ammoniac, and oil of tartar. If you put a metal over warm ashes it is soon melted. It fixes sublimated spirits and purges them from all superfluity.

A Marvellous Fact about Mercury.

Take salt of tartar and sulphur in equal parts, and sublimate both together. They will then ascend together into the glass. Take some of that sulphur and sublimated salt, ground small, and place them in a sublimatory on

crude Mercury. Sublimate them together; then you will find the sulphur and the salt of tartar above in the glass sublimatory, while the Mercury remains at the bottom, and nobody can ever more revivify it. Take two parts of white sulphur, and also dissolve it. At length mix them together, and congelate. Take also j. ʒ of these powders to 200 (or else 100) ʒ of Mercury made warm, and caused to melt. Then you will find Luna.

Cement.

Take one part of common ☉, as it is in itself, two parts of tile dust, M. Make regal cement.

Water fixing all Spirits and dissolving all Metals.

Take alum, verdigris, and orpiment, j. oz. each: sal ammoniac and vitriol ij. oz. each: cinnabar ½ oz. Make a strong water.

The Fixation of Orpiment.

Pound it and distemper it with crepine oil. Pound again, imbibe, desiccate, and pound over a stone. Preserve for use. Then put in the fire and melt. If you put heated Mercury therein it will become coagulated and hard. Then take it, place it in a glass, and close securely. Set it over a slow fire for seven days (otherwise seven hours), and it becomes good gold.

How the Spirits of Water are produced: or concerning the Aquification of all Spirits and all Bodies.

Take of Calx of the Shells of Eggs, of Sal Ammoniac, } j. pound each.

(I should take fixed sal ammoniac.)

Put into a copper vessel. Cover well with the lid of Venus. Subject to a fire of coals. This smelts the matter. Then pour over the stone. Pound most minutely. Set to dissolve over the stone. Take j. ounce of this water. Pour over whatever spirit you will which flows in the crucible. It is then converted into a powder. Dissolve the same in water. Do this nine times. Then the waters are fixed. Take as much as there is of this water. Pour it over the Sun melting in the crucible. It is thereupon converted into powder, which then dissolves in water. The case is the same with Luna, Mercury, and other bodies. You have all waters fixed to work with them.

Water of Vitriol: very good for the Red.

Take vitriol, verdigris, sal ammoniac, sulphur, and, if you will, antimony also. Grind these together and distil with an alembic, until the whole of the water shall pass away, for this helps greatly to redness, and is marvellous for the above (*sic*) work of one day.

Elixir.

When sublimated fixed arsenic, sublimated fixed Mercury, and calx of Luna are covered over with water of sal ammoniac and dissolved with it, then is formed an elixir for every purified metal, and it tinges 100. This is the secret of the Greeks.

The Work of One Day for the Red.

Take v. parts of * and grind in a brazen mortar with j. part of sulphur. Place this in a vessel enclosed for four hours in a baker's oven. Afterwards pound and imbibe with water of atramentum and of sal ammoniac. Of this project j. part on xxx. parts of Luna, and thus it will be coloured. If you melt this Luna with Sol it will be very good.

Another for Saturn.

Take Pure Live Sulphur, j. part.
Crude Mercury, ij. parts.
Prepared Vitriol, ij. ʒ.

First of all join the sulphur with the vitriol, pulverised in acetum over a slow fire so that it may be resolved. Next add Mercury, by well incorporating it with them, and stirring it with a rod. Then it will be black amalgam. Take this from the fire and grind it to an impalpable powder. Place in a glass vessel well luted with a good seal. Give it a moderate heat for two weeks. Then increase the fire for one week. Break the glass and pound it, giving it continuous heat, until you have a bright red colour. Then cool and pound, placing it in another great and strong vessel, well luted in the midst, and closed with its hermetic seal. Give it a very strong fire for one week, until you see the substance melted like wax or oil. Then refrigerate and take out that most precious substance. If it does not turn to oil as is here described, dissolve it with rectified aqua vitæ, and coagulate three or four times until the oil remains in the fire. Then melt viij.lbs. of Saturn and viij.lbs. of Mercury. Make an amalgam, as you know how, by fusion, and project j.lb. of this medicine leaving it to melt for a quarter of an hour by mixing it with wood. Afterwards cool the black substance; one part thereof tinges the viij.lbs. of Saturn and the viij.lbs. of Mercury into a medicine. Melt again viij.lbs. of Saturn and viij.lbs. of Mercury. Take of this medicament one part, do again as above, and you will find Sol.

Augmentation for Sol.

Take Saturn. Melt, and pour over it an equal quantity of Mercury. Then take the same quantity of white arsenic. Mix it with Saturn and Mercury, and let it become a powder. Then take three parts of Luna. Melt in *. Inject the powder gradually, and little by little, until it completely enters. Stir it well with a stick. Then purge in a cineritium.

A Secret for the Solution of Sol or Luna.

Pound thoroughly calx of Luna or Sol with sal ammoniac. Place it in a glass vessel with the mouth open over hot ashes, and dry with a moderate heat until there shall be seen a white mass in which is no plated Luna. Next place in dung or a bath of Maria for nine or twelve natural days. Thus it is dissolved into water, which putrefy for the proper time. Afterwards congeal and dissolve it; and thus you will have the Stone.

OR BETTER.

Ferment the water thus produced with filings of Luna, or with little lumps of Luna or Sol, with an equal quantity of Mercury dissolved and then re-converted to Stone, in the way you understand. Then dissolve the Luna in the aforesaid water; congeal it frequently according to your lofty intelligence, until, if you shall have operated rightly, the perfect Philosophers' Stone is produced. Also take care that the volatile part does not exceed that of the fixed body. This is the First Secret Way.

WATER OF MERCURY.

Take of Mercury, } equal quantities.
of Sugar Candy, }

Pound them together. Leave the whole to putrefy for ten days. Distil it through the alembic twice and you have sublimated arsenic.

SUBLIMATED ARSENIC.

Take of Crude Arsenic, } j.lb.
of Soap, }

Pound the arsenic well. Mix these together, and so sublimate once or twice. This arsenic dissolves well in aquafortis and is good to fix.

ITEM.

Take equal parts of crude sulphur and mastich.

OR,

Take equal parts of sulphur and white sugar. Distil, and there will come a water or an oil. Take thrice distilled aqua vitæ, and place in it two parts of saltpetre. Distil to a water. It dissolves all bodies and renders Mercury fixed in one hour.

DISSOLVING WATER.

Dissolve glass gall in an aquafortis. The same water dissolves all spirits, arsenic, sulphur, cinnabar, Mercury, etc.

NOTE.

Calcine Luna with orpiment. Sprinkle the same powder upon Mercury sublimate. Thus it becomes fine silver.

NOTE.

Take equal parts of orpiment and vitriol. Melt together so that a red powder is produced, of which project some on Luna in a state of flux, and you will find fine gold.

EXTRACTION OF THE QUINTESSENCE FROM ALL METALS.

Take acetum distilled from wine and sal ammoniac fixed in it. It extracts the quintessence from all metals and is a secret.

CALCINATION AND SOLUTION OF SOL.

Take laudanum well ground (*sic*), stratify it with Sol perfectly divided into leaves, and burn it. Then the Sol is reduced to a calx, which is to be forthwith dissolved in the quintessence of wine. Let it be distilled by ashes

and it will go over through the alembic. If you wish to have pure Sol by itself alone, then put it into water, and distil gently; it will pass over as a quintessence, and remain in the bottom as gold of a citron colour. If you wish it for aurum potabile, use it with the quintessence of wine and rectify; but if for a tincture, you can make these two fixed as you know how; or otherwise, if you join dissolved gold together with its own quintessence to rectified oil of vitriol. Then there is produced a tincture which rejuvenates human bodies, and will transmute all metallic bodies into perfect gold. With this Mercury dissolve white sugar in quintessence of wine. Place at once in it the calx of Sol burnt by laudanum and it is wholly dissolved. These solutions avail for all purposes.

Oil of Tartar which dissolves itself in heat.

Take calcined tartar, or, as I think better, salt of tartar. Pour over it rectified water of life. Let it stand 24 hours in the bath. Extract the water from it, and add fresh aqua vitæ continually. Let it putrefy for 24 hours, as before, and extract it. Do this until it dissolves itself into an oil. Then take crude Mercury (and possibly prepared with Saturn). Inject two drops of that oil and you have etc. This recipe is the best medicine for an old wound.

Augment.

Take of Filings of Luna, ½ oz.
of Crude purged Mercury, 1½ oz.

Amalgamate. Add a third part of sublimated Mercury. Place in a jar or glass. Pour on oil of tartar so as to stand higher than two fingers. Shut up; place over a fire, and apply a slow heat for six days, until the matter be hardened. Take out. Pound on a stone. Place again in the vessel. Add more oil as before. Set again over a slow fire of five or six coals. Rule the fire for three days and it will be fixed. Then test. Refine a small quantity in Saturn, but what you do not reduce augment with Mercury, and work as before.

Oil of Tartar is made as follows.

Dissolve calcined tartar in good wine vinegar. Distil through the filter. Cause the vinegar to evaporate. Dissolve again, doing so ten times. At length permit the salt to melt by itself into an oil, which use for the above digestion.

Oil of Luna.

Take of Verdigris, } ℥ij. each.
of Sulphur, }

Pound, place in a glass cucurbit. Make therefrom a water like an aquafortis, with a gentle fire at first, latterly with a stronger. Next take ℥ij. of Luna dissolved in common aquafortis. Pour the former water thereupon. Extract the water together with the aquafortis through the alembic even unto the olitet, and the matter becomes brown in a glass; thus the Luna in the Keldt (?) becomes hard, and melts in the warmth like an oil or wax. To the same Luna add viij. oz. of purged ☿. Place in a cucurbit of glass, lute well.

Set in sand, at first with a gentle fire, for eight days until the matter unifies itself; afterwards increase the grade of heat. Although the matter does not ascend, yet it becomes fixed, and half a *part* of it remains.

For the Ashes of Luna.

Put Luna in a crucible to melt, and when it is in a state of fluxion project on it salt of alkali, thus purging it. Then make filings from it, and calcine them in an open reverberatory apparatus for six days. Thus the salt is extracted, which coagulate and again dissolve. One part thereof coagulates and fixes 40 parts of Mercury, and that Mercury, being coagulated, tinges 50 parts of purified Venus into real gold.

Oil of Sulphur.

Take Sulphur, Tartar, Glassgall, } lb.j. each.

Pound together. Melt. Immediately it liquefies extract it with an iron spoon, and put into a strong lye. Thus it dissolves, and the lye becomes red.

To Fix Saltpetre.

Take lb.j. of saltpetre in a vitrified vessel. Melt slowly. Sprinkle into flux thereupon one ounce of feathery alum (*alumen plumosum*). Thus it is fixed, and soon becomes an oil. The *alumen plumosum* must previously be pounded small.

Coagulation of Mercury.

Take arum in May. Pound it with a wooden hammer. Then distil a water from it. Pour it thereupon, even to the fourth time. Pound the fæces continually, and let the water be consumed. Then make *zeltele die druchne* (?). Put Mercury in a crucible. When the bubbling commences, throw the powder thereupon. Thus the Mercury coagulates itself into Luna.

Oil of Mercury.

Dissolve Mercury in aquafortis. Allow it to boil. Protect it from the fire and stir for three hours in an open glass. Then take the Mercury out. Dry. Pound upon a stone. Put it into a moist cellar. Thus it becomes an oil or water.

King.

Take *alumen de pluma.* Place vinegar over it and distil into water. This water clarifies new and immature pearls.

Note. Cement.

Make the king out of naphtha and marcasite, that is, antimony made white; the latter becomes black as amber, the other white as Luna. Cement therewith Sol and Luna with pounded glass and salt for twenty-four hours, etc.

Fixed Luna, Discovered by Me.

Take Saltpetre,
Antimony,
Sublimated Arsenic.

Imbibe thoroughly with oil of tartar, mixing intimately. Dry slightly. Afterwards melt in a crucible, first with a slow fire, then with a strong one. Grind the whole of this to powder. Take j. quint over ʒj., or more, if you like, and you attain the result.

Note.

Take equal parts of common salt rendered fluid like wax by a candle, and sulphur. Place in a strong glass phial or in a crucible, setting fire above and below it. Then it will be incorporated. One part of this suffices for 60 parts of Mercury.

Or,

If it be incorporated with sublimated Mercury, or several times with sublimated arsenic, and then be itself sublimated, it works wonders.

The Extraction of Mercury.

Take aquafortis, to which join common water, lest it be too strong, and sal ammoniac. If you evaporate this water you have oil of antimony, with which you can test anything.

Note.

When you wish to Dissolve Mercury Sublimate and White Marcasite (perhaps Bismuth).

Put the sal ammoniac into aquafortis, and they will dissolve; otherwise they will not. Aquafortis is made of vitriol, saltpetre, alumen, cinnabar, and verdigris.

Note.

Take oil of tartar and oil ♎ over amalgam of Luna and Mercury in equal quantities. Mercury will then be fixed as Hans Rormeyer has stated.

The Secret Philosophical Water Coagulating Mercury and Fixing Luna.

Make aquafortis out of vitriol and saltpetre in equal quantities. Take away the first water. Take lb.j. of the other. Add viij. parts of verdigris and viij. parts of vitriol beaten small. Seal up well, and put in a bath for nine days. Afterwards distil through a filter. This water dissolves all bodies and coagulates Mercury. It is the secret of the philosophers. Place (? upon) plates the Moon.

Augment of the Moon.

Take j. marc of Mercury. Impaste with ʒj. of sulphur and one ounce of arsenic. Then pound with them four ounces of iron filings. Make cinnabar with it all. Take up j. marc. of Luna and oz. iij. of cinnabar. Should the Luna have remained in the test, throw it upon it and it augments itself.

NOTE.

Take lb.j. of sugar candy. Put it in a tin can. Pour therein four parts of good white wine. Put this all in a kettle with water. Close the cans (*sic*) well with the upper cowl. Then boil so that at least one can may be well boiled. Then pour again another can of wine upon the remaining matter. Do this in the same fashion five times and you will have the oil. Lay the species therein as you will. Take one ounce of oil or of any species of aromatic. Pour a wine into it again, as above, and let it boil as before. Then you will find a black matter at the bottom of it; extract the oil by means of a filter, and reserve for use as you know. Lay the species according to your pleasure in the oil. Boil it and you will have an artificial balsam. Take a drop or two thereof. Imbibe with wine and it tinges itself.

OF THE WATER WHICH DISSOLVES SOL OR LUNA.

Take calx of the Sun or Moon. Pound it. Cleanse with water of salt alkali. Place in a dissolving vessel, and when it has been dissolved you will have perennial water. This water fixes spirits and coagulates Mercury. (Perhaps alkali of the Philosophers would be better.)

NOTE.

Take a common aquafortis. Dissolve Luna therein. Place impasted Mercury with sulphur, as you know. Extract it eight times, and prove in the cineritium. If you add oil of soap thereto, it will then be made.

OIL OF SOAP.

Shave the soap small. Add to it beaten tile. Distil through retort. Prick the leaves (*sic*). It fixes all spirits.

SALPETRA LUPI.

Take equal parts of vitriol, saltpetre, and alum. Make aquafortis and dissolve in it as much Mercury as possible. Then extract the water by an alembic, and finally give a great fire of sublimation, so that the spirits may go out of the water. Having cooled the vessel, let what was sublimated and what remained at the bottom be again dissolved in the same water, which extract once more by an alembic. Do this five times, always giving at the end a fire of sublimation, and at the fifth time it does not ascend. It remains at the bottom as red as blood. Keep this.

Next take sal ammoniac sublimated once by iron filings, j.lb.; and of the above-mentioned Mercury an equal weight. Sublimate five times. Then put it on marble to be dissolved, and let it become a red oil, which also preserve.

Take Sol which has been calcined and five times sublimated, with an equal weight of the above-mentioned sal ammoniac. Put this to dissolve; and you will have a red liquid, which you must retain. Then take oil of Mercury j.ʒ, liquor solis j.ʒ. Mix and coagulate. Take one part of this medicine, project it on twenty-five parts of calcined Luna, and you have Sol always remaining at twenty-four degrees.

NOTE.

Take of Calx of Luna,
of Saltpetre,
of Salt Alkali,
} each part j.

Pound the three substances well upon a stone. Put them in a crucible. Set on a gentle fire until all melts. Then pour out of the crucible on a stone. Next, pound it to a small pwder. Leave the matter with the stone in a damp cellar. When it dissolves in water, take one part of this and one part of water of Mercury. Put both waters together in one glass. Leave in a moderate temperature to coagulate. One part of the powder tinges xij. parts of revivified Mercury.

FIXATION OF VENUS.

Make a sharp alkali of *puch* ashes and quicklime.

Take of Arsenic, lb.j. (*alias* qq).
of Saltpetre, lb.j.
of Calcined Tartar, ʒiiij.
of Mercury Sublimate,
of Orpiment,
} ℥j.

Make powders. Pour four parts of the lye therein. Let it boil as dry as a powder. Melt Venus. Add an equal weight of the powders in flux thereupon. It will then be fixed Venus.

ANTIMONY.

Take some that has been subtly ground. Distil therefrom an ordinary aquafortis, until it becomes white. Next pour the quintessence thereupon. Distil it until it becomes fixed. This proves it.

Take the antimony and calcine well. If it does not diminish in weight it is right. Next, pound it small and pour the quintessence thereupon, when it extracts to itself a certain substance. This you must pour into the same glass vessel; it tinges Mercury into Luna, and it is the fourth part of gold.

WATER OF MERCURY.

Take Mercury sublimate, pound it small; imbibe a few times, say, five or six, with oil of vitriol. Continue to pound it dry seven times. Put it in a thoroughly luted glass. Pour upon it six times the weight of oil of vitriol, together with the moisture. Place it in a distilling stove. . Distil it as an aquafortis, at first gently, then stronger, and strongest last of all. Then the third part of the sublimated Mercury distils away, and the other stands up beautiful and brilliant like a small oriental pearl in a distillatory; it is such beautiful sublimated Mercury as can never before have been seen. Then proceed continuously as long as you please. Next, gradually extract the phlegm in the bath. Then you will have water of Mercury, which is above all waters. Ferment this with soul of the Sun. Coagulate and dissolve, fix and coagulate, and it will tinge if God has so willed it.

AUGMENT OF THE SUN AND MOON, GOOD AND SHORT.

Take of Vitriol,
of Verdigris,
of Alum,
of Saltpetre, } ℥s. each.
of Caluerey, ℥j.

Pound all together and place the powders in the crucible. Put the Sun and Moon over them. Place the powders again on the top. Set among ignited coals for two hours and pour together. Then it is right.

THE ABOVE-NAMED FIXATION.

Take Calcined Tartar, lb.j.
Saltpetre, lb.j.

with one measure of acetum distilled by the filter, and extract the salt with the said acid, with which imbibe the amalgam, until the acetum with the salt shall harden. After every imbibition let the acetum evaporate, and so the amalgam will be fixed. Also, if you will, imbibe arsenic, and even sulphur, with oil of tartar three or four times, and add to the former. Thus beyond a doubt will be obtained the fixation of the amalgamated Mercury. Lastly, melt all, and at length purify.

THE HERMETIC BIRD.

Take two pounds of strong lixivium, and put therein iiij.oz. of sal ammoniac, with iij.oz. of sulphur. (If the sal ammoniac and sulphur be fixed, and you add salt of alkali, it will be an oil coagulating Mercury.) Set to boil on a slow fire, constantly stirring it until all is turned into water red as blood. Distil by 3 and keep enclosed in glass for future use.

OIL OF LUNA DISSOLVING SOL.

Take of aquafortis from vitriol j.lb., arsenic j.lb., and stibium j.lb. Purify these by dissolving a little Luna therein. Then take water of alum and pour on that Luna in the glass. It will form a substance white and resembling cheese. Remove this carefully with a spoon. Then you will have water of Luna, to which add aqua vitæ, and distil the moisture thence in a bath. Thus you will find the oil of Luna, wherein you will be able to dissolve gold. Convert into an oil, coagulate, and you will attain your desire.

A GOOD AQUAFORTIS.

Take vinegar and cinnabar in sufficient quantities. Dissolve sublimated Mercury. Coagulate, and you will find *alumen chatinum*, which is made out of glass. Take the same quantity of arsenic out of iron to sublime.

ATTINKAR OF VENUS.

Take one part of Luna, filed and calcined by means of salt into subtle powders; also one part of Mercury, purged by vinegar and salt. Make an amalgam in vinegar, and afterwards pour into hot water. Then take it and press it delicately out. Next take exactly double the quantity of both. Put

them together in an egg with a long neck Set on hot ashes over a gentle fire. Let the humidity come out first. Then thoroughly lute the neck, and the neck shall emerge (*sic*) on the side through the cupel. In order to pound it sublimate it away ; let it stand continually for four hours, and stir the egg. Do this for nine days. Then remove and take exactly the same quantity of arsenic as there was of Luna at first. Let the moisture previously escape. Then seal up, and treat in all respects as before for nine days. Then take sal ammoniac sublimated by itself in the same quantity as the matter. Remove the sal ammoniac. Dissolve that which is at the bottom in the white of eggs, as you know, while that which will not dissolve is to be dried. Take again the same weight of sal ammoniac. Pound together. Sublimate the arsenic again therefrom, and dissolve it once more in the small trough. Continue this until it is all dissolved. Then put it all together into the egg. Lute it if the moisture has departed. Treat it as before for nine days, stirring it about. Thus it all becomes fixed. Ultimately it melts in the glass like an enamel, of which one part out of ten parts of purged Venus will be perfect Luna.

To Augment the Tincture.

If you have a quint, put it in a crucible. Stir it continually with a small piece of wood. Afterwards, when it is hot, set it on a ½oz. of Mercury. Leave it thus to stand in the fire until you can no longer perceive any smoke. When it is again ready, treat in this manner successively, according to the amount of the weight of the tincture.

When a Thing contains Gold or anything else and will not Separate.

In this case cast a lump of arsenic twice or thrice upon it; it then speedily departs and becomes fair.

For Saturn.

Take it in filings dissolved with acetum. Distil it by the tongue and again by the alembic. What remains in the bottom dissolve again in acetum, filter and distil by an alembic. Keep on until the Saturn remains at the bottom as a fused oil. Possibly the oil of Jove could be produced in the same way.

Flowers of Bodies.

Take the dregs of wine. Place them in a vessel to the thickness of five fingers. Let there be in the middle of the vessel a circulus, and on the circulus place a wooden cross. On this cross put plates, and let the aperture of the vessel be smeared with the lute of wisdom. Place in a hot furnace for seven days. On the eighth day take it out and put aside the flower, washing it with a brush, or simply in water. Let the water subside, strain it through a cloth, and dry the flower. Then operate as before with the plates.

NOTE.

Make an extract of lemons in a clean vessel. Put gold filings therein. If water is produced during the night, this is the gold for leprosy, and it keeps a man young.

ALSO.

Crush green sloes in a pan.

AMALGAMATION.

Take equal quantities of orpiment and vitriol. Smelt together so as to produce a powder. Take one part and throw it upon Luna when it melts, and you will find Luna.

ANOTHER.

Take bismuth in any quantity as calcined tartar and pitch (?). Melt and found three or four times. Then add to the bismuth this wilderness. Take one part thereof and one part of Luna. Purge by Saturn and you will have Luna.

Also the *pars cum parte* * will be tincture over Luna. But if the flower of Luna be added to Mercury sublimate or arsenic, and be prepared according to art, it will become a tincture over Venus. Each of them tinges one hundred parts.

NOTE.

Liquefy the body Zidar in a large crucible and take it out with an iron spoon, projecting it upon a flat stone. There will be plates which you can select according to your pleasure for the above-mentioned operation.

TO EXTRACT THE SOUL.

Take Luna and let it melt. Whilst in flux project within it some talc, which attracts the soul of Luna. Then extract the soul in thrice distilled acetum. The Luna will be fixed if it be frequently melted with some more talc. Note when the soul is extracted. Then take earth and extract from it the combustible oil. Pour on the earth distilled phlegma and extract from it its salt. Then take the spirit in which is the soul, plant it by degrees in the earth, always with an eighth part of water. Imbibe the earth and continually repeat this, always drying it with a gentle heat night and day, until it has drunk up as much as it can. Afterwards distil (otherwise sublimate) as you know how, and as you have the intention.

SOL AND LUNA.

Take filings of Sol or Luna, and place them in a glass vessel. Pour thereon a sufficient quantity of undistilled acetum, and let it stand four or five days to putrefy. After this pour away the acetum and wash the filings well with common salt so that it may be pure. Dry on a stone, and then imbibe with water of sal ammoniac. Grind, dry in the sun, and keep doing this as often in the day as you can until the substance shall become black. Before this many colours supervene, to which you need pay no heed. When the substance is after some difficulty coagulated on the stone in the sun, after it

has come to the point that it can be dissolved with * in the sun, it suffices. Now put the stone with the substance into a cellar, and it is resolved entirely into oil in the course of the night. Set this oil in dung for five days to putrefy. Then distil with an alembic in a warm and moist place.

Having done this, take a clean sponge, dip it in water of sal ammoniac, which changes over the oil. Thus extract the sal ammoniac. After this is extracted, press the sponge in the hand, and having entirely drawn off the sal ammoniac water from the oil, pour on it common tepid water, and you will remove thus all saltness with the sponge, until you perceive nothing saline remaining and the whole of the oil is sweet.

Precipitation.

Take of Calcined Alum, } part j.
of Saltpetre, }

Melt them. Two ounces thereof fall upon one marc of Luna. The Luna does not in anywise weaken aquafortis.

Tincture.

Take thin plates of Sol in any quantity you like, place them in oil and boil in one glass vessel. Put in it sublimated wine, kindle it, let it burn, and it will become calx of gold. Do this thrice or oftener. Take the calx, grind it well on a stone with an equal quantity of fixed sal ammoniac; place in it a modicum of strong acetum. Having ground these ingredients, put them in a glass vessel carefully closed with the lute of wisdom. Set this in horse dung for eight days and a red water will be produced. Take sublimated Mercury, place it in water and grind on a stone. It becomes a red powder. Place it in dung for eight days and it will become a water. Congelate this and then one part tinges one hundred parts of Luna.

Tested Augment of Luna.

Take of Well-calcined Alum, lb.j.
of Saltpetre, lb.ij.

Make aquafortis and purge. Take of that 4 oz. In this dissolve ʒij. of Luna. Take again of the aforesaid water ʒij. Add thereto a little sal ammoniac, and in that water dissolve ij. ounces of metallic or crystalline arsenic. Again take two ounces, with the addition of sal ammoniac, and dissolve ij. ounces of sublimated Mercury. Preserve these waters specially, each by itself. Then dissolve in the said aquafortis lb.j. of purged Venus, which solution takes place, say, in twenty-four lotones. These being dissolved, conjoin all the waters in a grand cucurbit. Pour a fourth part of water thereon. Let it stand three hours to mix. Afterwards distil the water from it by means of an alembic, the fæces will then remain moistened at the bottom. Dry these by means of a slowly burning fire. Then take saltpetre and melted salt. Mix them under the powder in a crucible. Set it in a wind furnace. Melt together. Pour it into a receiver or crucible smeared with honey or suet. Crush and refine upon the test; you will then have twelve ounces of Luna.

CEMENT REGAL.

Take of Brick Dust, two parts.
of Salt, one part.
Moisten with vinegar ; grade therein.

PHYSICAL WATER.

Take sal ammoniac, which has been thrice sublimated, distilled, and coagulated, and then once more let it be resolved and distilled. Let the process be repeated thrice. If it has been dissolved in aqua vitæ, distilled, coagulated, and finally resolved, it dissolves all calcined and burnt bodies, as also all calcined and sublimated bodies, with a marvellous solution, in a crucible on the fire, within the space of a single hour, and this by the help of God and by virtue of Him.

ITEM.

Let us compound our Philosophic water by the help of God and His virtue. Take of sal ammoniac, dissolved and thrice distilled, vj. drams, and of rectified oil vj. drams. Mix together and imbibe six of the aforesaid plates by degrees on porphyry, or on a glass table until it has thoroughly imbibed, and when all is absorbed, put it in a glass vessel under horse-dung for three days. On the fourth day project this on three pounds of the aqua vitæ already described, and put in a venter equinus for fifteen days. On the sixteenth day you will find the plate dissolved into a white water like milk. Change the dung every fourth day, complete this water, and this is the philosophic oil, a water penetrating and quieting, lighting candles and illuminating the house, and whereby all philosophers are sustained. Herewith every volatile substance is restrained from escaping, such as Mercury, Sulphur, and Arsenic.

THE WHITE.

Take equal quantities of Mercurialis and Saccharum. Mix and let stand for nine days. After this extract the oil according to the fashion of lay people. That is perfect, if perfectly produced. If it be placed in a glass globe it shines by night, and makes a beautiful colour on the face of a man or a woman. If anyone drinks of this oil every morning, though he be 100 years old, he shall have the complexion of a young man, all his limbs will be light, and he will not be able to be out of spirits. Taking this oil for 40 days on an empty stomach perfectly cures epilepsy of 40 years' standing. So, too, asthma. The white strengthens man's nerves beyond all other kinds. Mixed with castor oil and applied to the bone it removes all contraction of the limbs, and cures paralysis of the nerves. For these reasons we put it forward as precious. One drop of this white put in the eye every morning clears the eyes and keeps them healthy.

ITEM.

Take white (? cadmia), gold leaf, oriental pearls, and rhabarbarum in equal parts. Grind together. This is the best medicine for leprosy, which it entirely cures if it be taken each morning on an empty stomach. It produces

a good colour, but care must be taken to drink little and only good wine. A man should use this medicine until his complexion is good, and he himself will be perfectly healthy, please God.

Otherwise

Take equal parts of Mercurialis and Meter. Mix so that the Mercury shall be previously heated. Then allow to stand for nine days. Afterwards extract the oil according to the mode of the lay people. This oil is perfect, etc.

A Light which always Burns.

Take any quantity of sugar, and an equal amount of Mercury. Mix thoroughly and leave it to stand for 13 or 14 days. Afterwards distil as an oil. Then take a small linen cloth and press it through. If it were put in a glass it would shine like a light.

Fixation of Mercury.

Take alum and dregs of wine. Dissolve in urine, and distil by a filter. Then resolve sulphur in it by boiling. Place Mercury in it and let it boil with a gentle fire, continually stirring it, so that it may escape the fire.

Note.—*Certain formulæ and quantities which occur in the* Manual of Paracelsus *are either peculiar to the treatise or have long fallen into disuse, and it is difficult to identify their meaning.*

Here ends the First Volume of the Hermetic and Alchemical Writings of Paracelsus.